Office-Supreme Court, U.S.
FILED
DEC 23 1982
ALEXANDER L. STEVAS,
CLERK

Nos. 82-354, 82-355, 82-398

IN THE

Supreme Court of the United States

OCTOBER TERM, 1982

MOTOR VEHICLE MANUFACTURERS ASSOCIATION OF THE UNITED STATES, INC., *et al.*, *Petitioners*,

v.

STATE FARM MUTUAL AUTOMOBILE INSURANCE COMPANY, *et al.*, *Respondents*.

CONSUMER ALERT AND PACIFIC LEGAL FOUNDATION, *Petitioners*,

v.

STATE FARM MUTUAL AUTOMOBILE INSURANCE COMPANY, *et al.*, *Respondents*.

UNITED STATES DEPARTMENT OF TRANSPORTATION, *et al.*, *Petitioners*,

v.

STATE FARM MUTUAL AUTOMOBILE INSURANCE COMPANY, *et al.*, *Respondents*.

On Writs of Certiorari to the United States Court of Appeals for the District of Columbia Circuit

APPENDIX TO BRIEF OF PETITIONERS MOTOR VEHICLE MANUFACTURERS ASSOCIATION OF THE UNITED STATES, INC., AMERICAN MOTORS CORPORATION, CHECKER MOTORS CORPORATION, CHRYSLER CORPORATION, FORD MOTOR COMPANY, GENERAL MOTORS CORPORATION, VOLKSWAGEN OF AMERICA, INC., AND AUTOMOBILE IMPORTERS OF AMERICA, INC.

[Counsel Listed on Inside Cover]

December 23, 1982

Of Counsel:

WILLIAM H. CRABTREE
Vice President and General Counsel
EDWARD P. GOOD
Senior Attorney
Motor Vehicle Manufacturers Association of the United States, Inc.

FORREST A. HAINLINE, JR.
Vice President and General Counsel
DANIEL P. GIMMY
Senior Attorney
American Motors Corporation

RICHARD GOODYEAR
Vice President, General Counsel and Secretary
MICHAEL W. GRICE
Attorney
Chrysler Corporation

HENRY R. NOLTE, JR.
Vice President—General Counsel
JAMES M. MACNEE, III
Associate General Counsel
DONALD G. MCGUIGAN
Counsel
Ford Motor Company

OTIS M. SMITH
Vice President and General Counsel
CHARLES R. SHARP
Assistant General Counsel
WILLIAM L. WEBER, JR.
J. DOUGLAS HAND
General Motors Corporation

N. RICHARD SKIPPER, JR.
General Counsel
GERHARD P. RIECHEL
Associate Counsel
Volkswagen of America, Inc.

LLOYD N. CUTLER
JOHN H. PICKERING
WILLIAM R. PERLIK*
ANDREW B. WEISSMAN
WILLIAM R. RICHARDSON, JR.
TERRENCE J. LEAHY
WILMER, CUTLER & PICKERING
1666 K Street, N.W.
Washington, D.C. 20006
(202) 872-6000

Counsel for Petitioners Motor Vehicle Manufacturers Association of the United States, Inc., American Motors Corporation, Checker Motors Corporation, Chrysler Corporation, Ford Motor Company, General Motors Corporation, and Volkswagen of America, Inc.

MILTON D. ANDREWS
DONALD M. SCHWENTKER
LANCE E. TUNICK
RIVKIN SHERMAN AND LEVY
900 Seventeenth Street, N.W.
Washington, D.C. 20006
(202) 347-6007

Counsel for Petitioner Automobile Importers of America, Inc.

**Counsel of Record*

TABLE OF CONTENTS

	Page
Brief for Intervenors Motor Vehicle Manufacturers Association of the United States, Inc., *et al.*, *State Farm Mutual Automobile Insurance Co* v. *DOT*, Nos. 81-2220, 81-2221 (D.C. Cir., filed February 12, 1982)	1
Affidavit of J.D. Withrow	2
Affidavit of Eric E. Childs	18
Affidavit of William J. Wittenberg	30
NHTSA's Memorandum in Response to the Court's August 4, 1982 Order (October 1, 1982)	38
State Farm's Memorandum in Response to NHTSA's Comments on the September 1983 Effective Date (October 8, 1982)	53
State Farm's Supplemental Memorandum in Response to NHTSA's October 1 Submission (October 20, 1982)	68
NHTSA's Response to State Farm's and NAII's Supplemental Memoranda (November 2, 1982)	115

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 81-2220

STATE FARM MUTUAL AUTOMOBILE INSURANCE CO., *et. al.*,

Petitioners,

v.

DEPARTMENT OF TRANSPORTATION, *et al.*,

Respondents.

No. 81-2221

NATIONAL ASSOCIATION OF INDEPENDENT INSURERS, *et al.*,

Petitioners,

v.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION,

Respondent.

BRIEF FOR INTERVENORS MOTOR VEHICLE MANUFACTURERS ASSOCIATION OF THE UNITED STATES, INC., AMERICAN MOTORS CORPORATION, CHECKER MOTORS CORPORATION, FORD MOTOR COMPANY, GENERAL MOTORS CORPORATION, VOLKSWAGEN OF AMERICA, INC., AND AUTOMOBILE IMPORTERS OF AMERICA, INC.

Filed in Final Form
February 12, 1982

* * * *

AFFIDAVIT OF J. D. WITHROW
VICE PRESIDENT—ENGINEERING
CHRYSLER CORPORATION

J.D. Withrow, being duly sworn, states:

1. I am Vice President—Engineering for Chrysler Corporation. In that capacity I am in charge of all engineering design and development work for Chrysler. I have 25 years experience in the engineering and product planning activities of Chrysler. From that experience and from the requirements of my present position, I am thoroughly familiar with the lead time requirements for the design, development and manufacture of automobile components and automobiles.

2. I have been informed by Chrysler's General Attorney's Office that State Farm Mutual Automobile Insurance Co., the National Association of Independent Insurers and certain other parties are challenging the October 23, 1981 order of the National Highway Traffic Safety Administration rescinding the passive restraint requirements of FMVSS 208 and seeking to have those requirements reinstated. At issue are requirements that automatic seat belts or other passive restraints be installed on large and medium sized vehicles for the 1983 model year and on all other vehicles for the 1984 model year. I am further informed that this court has requested that we advise them of the time that would be required by vehicle manufacturers to take appropriate action if the court were to invalidate NHTSA's rescission order.

3. While Chrysler was energetically pursuing the development of automatic seat belt systems prior to NHTSA's rescission of the passive restraint requirements of FMVSS 208, its program for 1983 model requirements was only about half completed and its program for 1984 model requirements had just begun. Completing development of automatic seat belt systems meeting the requirements rescinded by NHTSA would be a complex, time-consuming process involving major

tear up and redesign of several major vehicle assemblies including both front doors, roof structure, instrument panel, interior trim, front seats and the seat belt assembly itself for all passenger cars built by Chrysler Corporation. For example, doors must be redesigned to permit the mounting of the seat belt retractor assemblies with sufficient reinforcing structure to withstand the high loads imposed on the system in vehicle crashes. In addition, a mechanism must be provided in the door to deactivate the inertial locking mechanism of the retractor when the door is opened so that the door will function properly and a mechanism must be developed to provide a shoulder harness turning loop to facilitate occupant entry or exit. In the system Chrysler had under development, the door arm rest or trim panel must be redesigned to house the retractor and related components. Indeed, as a practical matter, the internal structure and interior surface of all front doors must be substantially modified and essentially retooled. In essence, existing components must be thrown away and new ones developed and tooled. When these tasks are completed a multitude of trim and other parts must be designed and developed before a commercially acceptable door assembly is ready for production. The same type of situation exists for most other components affected by the passive belt system. Exhibit A is attached illustrating the types of parts that must be developed or redesigned for passive belts.

4. Installation of passive belts is further complicated by the fact that Chrysler has never built vehicles equipped with passive belt systems. Some of Chrysler's competitors have offered automatic seat belt systems on a very limited number of vehicles; those systems, however, are of a totally different design than that contemplated for Chrysler vehicles. This means that there is no automatic seat belt hardware presently designed or in production which can be incorporated into Chrysler vehicles. Even if such hardware were available, existing Chrysler vehicles have no provision for passive belts and major component assemblies such as doors, seats and instrument panels will have to be modified to accommodate passive

belt hardware. It is much simpler from a lead time standpoint to adapt existing hardware to vehicles which already contain provision for incorporating such hardware. Since neither the hardware nor the provision for incorporating the hardware exists in Chrysler vehicles, there is no means of significantly compressing necessary lead time requirements. I would also point out that the existence of manual seat belt hardware and a provision for installation of that hardware enabled some manufacturers to continue to use manual belts on some vehicles after NHTSA's April order delaying passive belt installation for certain vehicles until the 1983 model year.

5. Once automatic seat belt systems complying with the requirements of FMVSS 208 are designed, additional time is required to obtain tooling necessary to produce the required hardware and vehicle components, and to develop the necessary production processes for use in manufacturing automatic belt components and incorporating them into vehicles at our assembly plants. When the system is designed and production capability established the production methods to be used must be tested to assure that the systems can be efficiently produced. Finally, the completed production prototypes must be tested to establish compliance.

6. Over two years lead time is required to design, develop and incorporate into existing vehicles automatic seat belt systems of the type we were working on prior to October 29, 1981. Attached as Exhibit B are a series of charts demonstrating the lead time requirements for passive belt hardware originally developed several months ago for a 1984 model passive belt program.

7. I conclude that we cannot offer any 1983 model vehicles and cannot offer most 1984 model vehicles equipped with automatic seat belt systems. Applying the information set forth in Exhibit B to the current situation, our lead time requirements may be summarized as follows:

(a) *Vehicles with over a 100 inch wheel base.* Development of an automatic belt system for our so-called E Body

vehicles had progressed the farthest when NHTSA issued its October 23, 1981 order because FMVSS 208 originally required that these vehicles comply by September 1, 1982 (1983 model year). If the passive belt requirements of FMVSS 208 were reinstated by June 6, 1982, we would be able to incorporate such a system to 1984 model E Body vehicles.

(b) *All other existing vehicles.* When NHTSA issued its October 23, 1981 order rescinding the passive restraint requirements, work on automatic belt systems for all other vehicles was at an early stage since compliance for these vehicles was not required until September 1, 1983 (1984 model year). As of October 23, 1981 this program was 7 weeks behind schedule. If the requirement for automatic seat belts was reinstated after a delay of several months it would now take at least 12 weeks to acquire and where possible reassemble the people necessary to design and develop automatic seat belts and reinstitute our program. As a result, over two years lead time (112 weeks) would be required to incorporate such systems on these vehicles. This means that if the passive restraint requirements were to be reinstated it would have to be done *no later* than June 6, 1982 in order for us to meet a September 1, 1984 effective date for existing vehicles other than E Body vehicles.

(c) *New vehicles.* Chrysler is developing a new model vehicle for model year 1985 called the H Body. Incorporating automatic belts into a new vehicle would pose further difficulties since it would disrupt the highly interrelated design process of a vehicle presently being designed for future production. In the case of a new vehicle configuration, such as the H Body, an additional 13 weeks of lead time would be required to install automatic belts on H body vehicles over that required to install such belts on existing vehicles. As to this new vehicle line the passive belt requirements would have to be reinstated *no later than March 7, 1982* to permit Chrysler to incorporate such belts on 1985 model H Body vehicles.

8. It is not practicable to shorten the lead time set forth above. Since 1978 Chrysler has reported almost $3.5 billion in losses and is currently operating under $1.2 billion in federally guaranteed loans. As a result we have been forced to cut back severely in all areas of the Corporation including Engineering. We simply do not have the manpower or monetary resources to devote to a crash development program attempting to compress lead time. Even if we had unlimited resources, the foregoing lead times could not be significantly compressed without substantially increasing the risks of inadequate system design, production error and customer dissatisfaction.

9. In my judgment, a mid-model year introduction of passive restraint systems would not be practicable. Such a mid-year introduction of a major new subsystem involving changes to a number of vehicle components including right and left front doors, roof structure, instrument panels, seats, belt assemblies and numerous pieces of color coordinated interior trim on virtually all vehicle configurations built by Chrysler would require us to have a complex second launch in the middle of a model run. Such a second launch undoubtedly will require plant shut-down for a substantial period of time to remove obsolete components from the plant, to modify tooling, to fill the assembly line with new unique components, to incorporate new manufacturing processes and to instruct assembly line workers in performing new operations. This process would be difficult and time-consuming for any change in vehicle hardware. The task involved here, where substantial change and coordination would be required in the middle of a model run to assure proper vehicle assembly and color coordination of numerous modified interior trim parts, would be nearly unprecedented. Frankly, we do not have the manpower or other resources to conduct such a second launch of this magnitude. Temporary plant shutdown required by a second launch would have a severe adverse impact on Chrysler, resulting in the loss of sales and substantial other economic losses. Such a temporary shutdown could threaten the continued viability of Chrysler.

10. The lead time requirements discussed above are based on the assumption that the passive restraint requirement would be reinstated without change except for the effective dates and that we would use the type of system we were developing prior to NHTSA's rescission of the passive restraint requirements. I understand the Petitioners to be arguing that any reinstatement should include a prohibition of detachable automatic belts. This would represent a major change for Chrysler since we had planned to use detachable automatic belts in all of our vehicles as permitted in the standard. Such a change would force us to start over on all passive belt systems. In my judgment, a requirement of non-detachable passive belts would add over one model year and possibly several model years to each of the lead time schedules discussed above since we would have to develop and design an entirely new system with which we have no experience even in Engineering. Such a program would require us to investigate, address and attempt to resolve a number of additional unresolved problems like the problem of emergency release. Some form of emergency release is necessary in the event of accident. Yet the type of non-detachable belt advocated by Petitioners likely would of necessity require an emergency release mechanism designed into the seat belt retractor. The location of such a mechanism in the door where it could be jammed in a side impact is not in the interest of vehicle safety. At the same time location of the mechanism on the inboard side of the seat would make it very difficult to rescue an injured driver or occupant from a vehicle following an accident. This again would not be in the interest of vehicle safety.

11. In my judgment, reinstatement of the passive belt requirements of FMVSS 208 without the lead time discussed above could result in Chrysler being forced to discontinue vehicle production for a significant period of time. Chrysler

would not be able to survive a severe production disruption of this type.

/s/ J. D. Withrow
J.D. WITHROW

Subscribed and Sworn Before me
this 22nd day of January, 1982.

/s/ Lena Zolin
LENA ZOLIN
Notary Public Wayne County, Mich.
My Commission Expires Feb. 1, 1982

EXHIBIT A

Listed below are the major systems which must be either developed or redesigned to incorporate a detachable belt system:

I DOOR SYSTEMS: For Each Front Door—

1) Door inside panel—large formation to mount two retractors
2) New inside door panel reinforcement
3) Upper door frame bracket with weld nut to mount upper torso belt turning loop
4) Upper door opening anchor plate with guide pin to transfer upper torso belt loads to the body
5) Attaching hardware: Five (5) bolts, three (3) nuts
6) Lower door bracket with weld nut to attach the lap belt turning loop

Two (2) door cars with frameless glass must have the following additional changes for each door:

1) Rework the door daylight opening to accept a structural door post for the turning loop
2) New upper turning loop carrier (post)
3) New post/body interlock system consisting of two (2) brackets, striker and attaching bolts

4) Reinforcement bracket welded to the door inside panel and door shut face to accept the door post

5) Attaching bolts—post to reinforcement

II DOOR AND BODY TRIM SYSTEMS

1) Door trim panel cut-out

2) New arm rest to accept large spool retractors

3) Additional attachments (screws)

4) Additional sound and vibration protection

5) Additional sealing modifications

6) Changes on the 'B' pillar trim

7) Changes on the quarter panel trim (2 doors)

8) Changes on the headliner panel

9) New body upper 'B' pillar cover to reinforcement

10) New anchor guide receptacle cover at the door frame corner

III SEATING SYSTEM

1) Relocate power seat control center from side of the seat to front

2) Modification to the control center mounting bracket

3) Modification to the seat side shields (with power seat)

4) Change seat contour by changing the seat cushion and cover

5) Bench seat model cars—fixed arm rest

IV INSTRUMENT PANEL SYSTEM

All vehicles will require substantial change. The following list based on the 1983 model ET-41 is given as an example:

1) Lexan base panel instead of A.B.S. tool revisions needed

2) VA type point mounting screws

3) Insulation, paint, or material changes for all parts with plastisizers that contact lexan-column boot, crash pad, wires and control cables

4) Revise lower reinforcement with four (4) added brackets, two (2) end braces and two (2) column area braces

5) Side cowl nut and screw changes (all K and G bodies)

6) New steering column cover. Two (2) approaches, a two piece lexan cover with a ramp shape to deflect knees outward during impact and 2 inch sheet metal and foam bolster that crushes under impact

7) Relocation of rear lamp switch and fog lamp switch

8) Revise silencer pad

9) Fuse block serviceability will be affected

10) Two (2) extra lower left trim bezels must be relased with attaching screws

11) Added panel part numbers—vendor and assembly plant complexity

V FRONT SEAT BELT SYSTEM (TWO PER VEHICLE)

1) New upper torso retractor with mechanical pawl blocker assembly; consists of the following sub-assemblies:

- Retractor shaft
- Large arbor and ratchet assembly
- Lock pawl, pin and bushings
- Pendulum and pendulum support assembly
- Mechanical blocker lever assembly
- Lever return spring
- Webbing return spring
- Tension reliever assembly

2) New lap belt retractor with mechanical pawl bracket assembly consists of the following sub-assemblies:

- Retractor shaft

- Arbor and ratchet assembly
- Lock pawl, pin and bushings
- Pendulum and pendulum support assembly
- Mechanical pendulum blocker lever assembly
- Mechanical lever return spring
- Webbing return spring

3) Upper turning loop (to attach to either door frame upper bracket or door post on 2 door with frameless glass)

4) Lower turning loop (to attach at the lower rear corner of the door)

5) Seat belt latch plate

6) Seat belt buckle assembly

7) Retractors carrier bracket

* * * *

TOTAL 1984 MODEL YEAR L-24 AUTOMATIC SEAT BELT PROGRAM IN CHRONOLOGICAL ORDER EXTRACTED FROM THE NETWORK

NETWORK ACTIVITY NO.	SCHEDULED DATE COMMITMENTS		ACTIVITY TITLE	RESPONSIBILITY	ACTIVITY TIME IN WEEKS
500	6/ 1/81	A	BEGIN IMPACT DEVELOPMENT	S'BERGER	0.0
800A	6/16/81	A	START PRELIM L/O SWITCH	DUPREE	0.2
130	7/15/81	A	PRELIM L/O-ANCHOR & T'LOOP LOC	SHEA	0.0
500B	7/15/81	A	PRELIM SYSTEM DEFINED	S'BERGER	6.2
800	7/29/81	A	COMP PRELIM SWITCH L/O	DUPREE	6.0
130A	7/31/81	A	DR UPR + INR PNLS CONFIRM L/O	DYNES	2.4
501B	7/31/81	A	ANCHOR PROVE OUT	S'BERGER	2.4
180	8/ 3/81	A	HDWR COMPONENTS LAYOUTS N/R	SHEA	0.0
600	8/ 3/81	A	ENVIRONMENTAL LAYOUTS	SHEA	0.2
131	8/11/81	A	ENGRG MOCK-UP VEH	SHEA	3.8
820	8/18/81	A	COMP FINAL SWITCH L/O	DUPREE	2.8
IP1	9/15/81	A	START I'PNL D.O. THEMES	GALE	0.0
IP5	9/15/81	A	START I'PNL FEAS STUDIES	HOLTSLAG	0.0
500A	9/15/81	A	PRELIM I'PNL IMPACT REQRMTS	S'BERGER	14.8
501A	9/15/81	A	STRG COLUMN CONCEPTS	KIRBY	0.0
140 •	9/24/81		FEASIBILITY-INTERLCK CONCEPTS	DYNES	6.2
170	10/ 1/81		2 DIMENSIONAL TRIM CONCEPTS	GALE	1.0
840	10/13/81		REL PROG CAR SWITCH DESIGN	DUPREE	7.6
135	10/29/81		DESIGN OFFICE CONCEPTS COMP	GALE	4.0

NETWORK ACTIVITY NO.	SCHEDULED DATE COMMITMENTS	ACTIVITY TITLE	RESPONSIBILITY	ACTIVITY TIME IN WEEKS
400A	11/ 5/81	P.D.M. CONCEPT APPRV CORP. MANAGEMENT		1.0
400	11/12/81	3 DIM INT CONCEPT STUDIO REL	GALE	1.0
190	11/30/81	PRELIM L/O DOOR STRUCTURE	DYNES	3.2
610	12/ 2/81	H'WARE SAMPLES AVAIL-PROTOTYPE	SHEA	16.2
401	12/14/81	SURFACE DRWG POST FRT DR ANCHOR	J.LOVE	4.0
410	12/14/81	SURFACE DRWGS-COVERS-BRKT-T/LOOP	J.LOVE	3.0
420	12/14/81	SURFACE DRWGS-DR TRM PNL A'REST	J.LOVE	3.0
620	12/14/81	COMPLETE PROTOTYPE SAMPLE TESTS	SHEA	1.6
IP2	1/ 5/82	I'PNL D.O. THEMES HAND-OFF	GALE	14.2
IP3	1/ 5/82	D.O. PROVE-OUT COMPLETE	WRIGHT	14.2
IP4	1/ 5/82	SURFACE DRAWING RELEASE	J.LOVE	14.2
IP6	1/ 5/82	I'PNL FEAS STUDIES HAND-OFF	HOLTSLAG	14.2
200	1/ 6/82	IMPACT TEST & PROVE-OUT	S'BERGER	4.0
630	1/ 6/82	COMP PROG CAR H'WARE DESIGN L/O	SHEA	2.0
IP7	1/ 7/82	START I'PNL PROD DESIGN	KINCAID	0.4
430	2/ 3/82	COMP D.O. PROVE OUT STUDIES	WRIGHT	6.0
IP11	2/ 4/82	I'PNL DESIGN AID REL	HOLTSLAG	4.4
IP20	2/10/82	I'PNL P'TYPE IMPACT INFO REQ'D	S'BERGER	4.8
210	2/17/82	L/O REL-PROG CAR DOOR STRUCT	DYNES	6.0
440	2/17/82	SURFACE DRWG RELEASES	J.LOVE	2.0

NETWORK ACTIVITY NO.	SCHEDULED DATE COMMITMENTS	ACTIVITY TITLE	RESPONSIBILITY	ACTIVITY TIME IN WEEKS
601	2/17/82	FINAL ENVIRONMENTAL LAYOUT	SHEA	9.6
650	3/ 3/82	PROGRAM H'WARE SMPLS AVAIL	ERNSTER	8.0
660	3/31/82	COMP HARDWARE SAMPLE TESTS	SHEA	4.0
951	4/ 5/82	SOUND & ELECTRONIC	JENKINS	0.0
IP21	4/12/82	COMP I'PNL P'TYPE IMPACT DEV	S'BERGER	8.4
850	4/13/82	BEGIN PARTS TESTS	DUPREE	24.0
IP12	5/ 4/82	COMP I'PNL DESIGN AID	KOZICKI	12.4
211	5/11/82	IMPACT PROVEOUT-PROD DESIGN	S'BERGER	2.0
IP8	5/27/82	I'PNL A.D.M.R. FOR DIE MODEL	KINCAID	0.0
113	5/27/82	I'PNL VALID'N CAR RELEASE	KINCAID	3.4
750	6/ 2/82	QTR TRM PNL L/O COMP	C.LOVE	8.0
710	6/ 4/82	FRT DOOR ARM REST L/O COMP	C.LOVE	15.0
860	6/ 7/82	COMP PARTS TESTS	DUPREE	7.6
213	6/ 9/82	TRIM PROVISIONS	C.LOVE	2.0
560	6/16/82	BIW L/O-RF RAIL FORM,8 POST,ETC	DOERR	16.6
310	6/24/82	VALID'N CAR DESIGN RELEASE	C.LOVE	0.0
214	7/ 2/82	FRT DR WIRING PROVISION L/O	CUNNINGHAM	4.0
IP13	7/12/82	COMP PROG I/P WRG DEV	CUNNINGHAM	4.0
870	7/12/82	COMP PROD PART DETAILS	DUPREE	4.8
670	7/13/82	COMP FINAL HARDWARE LAYOUT	SHEA	14.2
220	7/22/82	EMD RELEASE - DOOR STRUCTURE	DYNES	2.6
IP14	7/26/82	REL PROG I/P WRG	CUNNINGHAM	2.0
880	7/26/82	RELEASE SWITCH DESIGN	DUPREE	2.0

NETWORK ACTIVITY NO.	SCHEDULED DATE COMMITMENTS	ACTIVITY TITLE	RESPONSIBILITY	ACTIVITY TIME IN WEEKS
561	7/29/82	BIW REL-RF RAIL FORM,8 POST,ETC	DOERR	6.0
720	8/ 9/82	FRT DR ARM REST DETAIL CHK	C.LOVE	9.0
730	8/ 9/82	TOOL AID-DOOR TRIM PANEL	DUBAY	9.0
955	8/ 9/82	SOUND & ELECTRONIC INFO	JENKINS	0.0
975	8/ 9/82	FAB/INSTALL PROG CAR HARNESS	CUNNINGHAM	2.0
680	8/10/82	RELEASE PRODUCTION DETAILS	SHEA	4.0
113A	8/16/82	I'PNL PRODUCTION DETAIL COMP	KINCAID	11.0
212	8/16/82	COMPLETE DR. MOCK-UP BELT MTGS	KOZICKI	6.0
841	8/16/82	PROG DR WRG DEV COMP	CUNNINGHAM	4.0
992	8/16/82	MANAGEMENT REV OF DESIGN AIDS	KOZICKI	0.0
760	8/23/82	QTR TRM PNL DETAIL CHK	C.LOVE	5.0
711	8/30/82	INITIAL PURCHASING REQSTN	IMRICK	3.0
842	8/30/82	PROG REL DOOR WRG	CUNNINGHAM	2.0
IP9	9/10/82	COMP I'PNL DIE MODEL	DUBAY	14.6
910	9/14/82	FAB/INSTALL PROG CAR HARNESS	CUNNINGHAM	2.0
340	9/16/82	SPECIFY VEHICLES TO ORDER	S'BERGER	0.0
230	9/17/82	PURCHASING RELEASE	IMRICK	8.0
240	9/17/82	T/A - DR I/S PANEL	DUBAY	8.0
562	9/24/82	TOOL AIDS - BIW	DUBAY	8.0
761	9/28/82	INITIAL PURCHASING REQSTN	IMRICK	5.0
770	9/28/82	TOOL AID-QTR TRM PNL	DUBAY	10.0
970	10/19/82	COMP DEVELOPMENT I/P HARNESS	CUNNINGHAM	10.0
320	10/28/82	PROCURE/FAB COMPNS.	ERNST & THIB	17.6

NETWORK ACTIVITY NO.	SCHEDULED DATE COMMITMENTS		ACTIVITY TITLE	RESPONSIBILITY	ACTIVITY TIME IN WEEKS
350	10/28/82		ORDER VALID'N CARS	THIBODEAU	6.0
965	11/ 2/82		COMP I/PNL HARNESS DESIGN	CUNNINGHAM	2.0
905	11/ 9/82		COMP DEV FRT DR WIRE HARNESS	CUNNINGHAM	8.0
980	11/ 9/82		REL PROD I/PNL HARNESS	CUNNINGHAM	1.0
330	11/18/82		INSTALL PARTS AT BUILD-UP	THIBODEAU	3.0
113B	11/22/82		I'PNL PROGRAM PARTS AVAILABLE	KINCAID	24.8
900	11/23/82		COMP DES FRT DR WIRE HARNESS	CUNNINGHAM	2.0
370	11/29/82		START VALID'N CAR BUILD	THIBODEAU	4.0
920	12/ 2/82		REL FRT DR WIRING HARNESS	CUNNINGHAM	1.0
IP15	12/ 6/82		VALID'N CAR I'PNL COMPLETE	KINCAID	1.6
379	12/13/82	R	COMP VALID'N CAR BUILD	THIBODEAU	1.0
520	12/22/82		BEGIN VEH VALIDATION TESTS	S'BERGER	1.4
530	1/20/83	R	COMP VEH VALIDATION TESTS	S'BERGER	3.0
530A	2/ 4/83		VALIDATION REPORT	S'BERGER	0.8
890	3/ 4/83		PROD PARTS AVAILABLE	DUPREE	30.0
IP10	3/25/83		C'PTE PARTS AVAIL I'PANEL	MTS	26.4
250	3/25/83		C'PTE PARTS AVAIL DOOR H'WARE	MTS	25.4
690	3/25/83		C'PTE PARTS AVAIL S'BELT H'WARE	MTS	30.8
740	3/25/83		C'PTE PARTS AVAIL FRT DR A'REST	MTS	28.0
780	3/25/83		C'PTE PARTS AVAIL QTR TRM PNL	MTS	24.0
895	3/25/83		C'PTE PARTS AVAIL SWITCH	MTS	3.0
930	3/25/83		C'PTE PARTS AVAIL FRT DR WIRING	MTS	15.0
985	3/25/83		C'PTE PARTS AVAIL I'PNL HARNESS	MTS	18.0

NETWORK ACTIVITY NO.	SCHEDULED DATE COMMITMENTS		ACTIVITY TITLE	RESPONSIBILITY	ACTIVITY TIME IN WEEKS
563	4/ 8/83		BIW PARTS FOR C'PTE START	MTS	26.2
540	4/29/83		BEGIN VEH COMPLIANCE TESTS	S'BERGER	11.8
550	6/30/83		COMP VEH COMPLIANCE TEST	S'BERGER	8.6
550A	7/ 1/83	R	COMPLIANCE REPORT	S'BERGER	0.2
999	8/ 1/83	R	VOL PROD FRAMING START	MTS	17.6

* * * *

APPENDIX TO AFFIDAVIT OF ERIC E. CHILDS

LEAD TIME IN THE DEVELOPMENT OF VEHICLES AND THEIR COMPONENTS FROM CONCEPT TO PRODUCTION

A. LEAD TIME

1. "Lead time" is the span of time needed to carry out the steps required to place into production a vehicle, or a component or subassembly of components of the vehicle, which meets all of the vehicle manufacturer's acceptance standards. That span varies with the task being considered; under the current Ford Program Timing Standard, * discussed in greater detail below in section B of this Appendix, an all-new vehicle generally requires a lead time of 5½ years, but minor components may require considerably less time. The lead time needed for a given component varies with its design complexity and the way it interrelates with other vehicle components. Most components must be especially designed for the Ford vehicle or family of vehicles in which they are to be used; very few "off the shelf" items fit into every Ford vehicle.

2. The lead time for any part must be adequate to allow performance of the following steps. These steps are generally sequential, but may overlap somewhat:

a. Concept	The selection of a series of design alternatives, an optimizing approach which typically considers factors such as function, reliability, investment and variable (unit) cost, and the rapidity with which the concept can be brought to production.

---

*Vehicles intended for introduction after the 1985 model year (which are already under development) are being developed under this Standard. Vehicles intended for introduction up to the 1985 model year employ a prior standard requiring five years for the development of an all-new vehicle.

b. Design

Specific rendition of an agreed upon concept as it applies to the vehicle in question, resulting in information (e.g., engineering drawings or die models) sufficient to fabricate that part, or assembly, or vehicle.

c. Development

Test or prototype program using parts from temporary tooling to ascertain whether the part, assembly or vehicle assembled from such parts meets the performance requirements placed upon it, and, if not, to identify and resolve any problems in the design, such as function, durability, fit and finish. This phase answers the question, "Does the design work as intended?" If it does not, the preceding design step must be repeated, and new parts must be procured for development verification. If it does, the verified design is released for fabrication of production tooling.

d. Tooling

Tooling of the released design provides the means to make the part or assembly in quantities sufficient to support mass production of the vehicle.

e. Functioning

Parts produced from production tools must be trial assembled to verify their acceptablility for production with respect to function, fit and appearance, and to ascertain that the process and tooling for assembling the vehicle produce an acceptable vehicle with those parts. Failures at

this level may require redesign, redevelopment (in the case of major failures, which are rare), and/or revisions in tooling, in the parts fabrication process or in the vehicle assembly process, and refunctioning.

f. Production/ Assembly — Parts that function properly are authorized for production. Time then is required for the parts suppliers, whether within or outside Ford, to obtain raw materials and manufacture the parts at rates limited by the production capacity of the tools. Assembly of complete vehicles can begin only when all parts are available in adequate quantities and continuing supplies are assured.

3. A typical new car may have 1,400-1,500 new assemblies made up of some 30,000 or more parts. Obviously. given the foregoing sequence of steps that must be followed to develop a vehicle and parts which, when mass-produced, will perform reliably in accordance with Ford's specifications, a complex assembly such as an instrument cluster (which may be made up of as many as 300 parts) requires far more time to design, develop and fabricate than would a single part such as an arm rest or door handle. However, the progress of each part from concept to production follows the sequence of steps described above.

4. When a part or assembly in an already-design vehicle is changed, not only that change, but also the cumulative effect of the other changes which the first change necessitates affect lead time schedules. Not primarily a question of manpower or money, lead time flows from the complex interrelationships among all steps that must be coordinated if the development and production process is not to stop. Vehicle lead time depends on the individual component lead times as well as the time required to conceptualize and coordinate development and production of the whole vehicle.

B. PROGRAM TIMING AT FORD FOR A NEW-VEHICLE PROGRAM.

1. A great number and variety of Ford parts are involved in vehicle development and manufacture, and the work of a great number of specialized Ford activities must be coordinated to conceive and develop to the point of production in the shortest practicable time a new vehicle which meets Ford specifications for quality and reliability. (Please see attached Exhibit I.) Generically, these activities are Planning, Engineering, Design, Manufacturing/Procurement and Assembly. The product development process is sequential in nature; the timing performance of one Ford organization depends upon the performances of preceding organizations. The coordination of these activities is accomplished through the use of the so-called "Program Timing Standard" (Standard).

2. The Standard specifies a sequence of key steps, the activity or activities responsible for performing each step, the point in time prior to Job #1 (the date on which mass-production begins) when that step is to be performed, and the span of time alloted for its completion. Each time span is the minimum deemed necessary to produce quality products at acceptable cost levels. A failure to complete a step on time creates a risk that cost, fit, finish, or performance objectives for the part or vehicle may not be met, and therefore draws the particular attention of management.

3. Very few cars are all new in a given year. Exhibit II shows the introduction model year of every car line which is currently produced by Ford. From this it can be seen that there are rarely more than three or four really new vehicles introduced in a given year. The development period for Ford vehicles now being developed for introduction after the 1985 model year extends from 38 months for a vehicle to which merely exterior styling changes are being made, to 66 months for an all-new vehicle. Vehicle development programs are staggered to distribute the workload more evenly. Each activity involved in the development process is working in any given calendar year on a succession of developmental vehicles intended for introduction over a period of three or more model years.

4. *The Planning Sequence*
The planning sequence at Ford consists of three major phases, the Concept, the Advance, and the Production phases. As already mentioned, for an all-new vehicle their performance is scheduled to require 5-1/2 years for an all-new vehicle:

a. *Concept*
66 months before Job #1 (i.e., the date on which mass production of vehicles begins)

In this span of 12-15 months which is scheduled to start 66 months before Job #1, (the date on which mass-production of vehicles begins) alternative vehicle concepts for a given model are explored. New powertrains start this phase some nine months earlier (i.e., 75 months prior to Job #1). By "concepts" is meant the possible combinations of vehicle elements such as size, package (usable room for people, luggage, components), body construction, bumpers, brakes, suspension and engine and drive line placement for meeting the requirements of the marketplace and the law in the context of available resources. Among the procedures used to gather information for generating concepts are market surveys, competitive model tear downs and drive evaluations, and other "paper studies." The activities of this phase typically produce a series of alternative concepts and a generalized notion of a vehicle size that is practicable.

b. *Advance*
54 months before Job #1

The concept alternatives are further developed in the Advance phase, which is scheduled to begin 54 months before Job #1 and to last 16 months. The objective of this phase is to

select a single program concept. That concept will include a set of vehicle assumptions that describes critical dimensions (called "Hardpoints") and complete specifications for vehicle aspects such as weight, fuel economy, repairability, investment and cost, and "image" — how the intended vehicle will relate to the market. These assumptions are developed by means of the first detailed work in full-scale clay models, which verify the acceptability of vehicle dimensions and appearance. These assumptions also are developed by cost studies, and by construction and test of prototype vehicles called Advanced Mechanical Prototypes; the test results verify chassis, structure, and suspension concepts.

c. *Production*
38 months before Job #1

(1) Management acceptance (which is scheduled to occur 38 months before Job #1) of assumptions developed in the Concept and Advance phases starts the last phase (Production). Initially, Management selects a single vehicle design concept and approves critical vehicle dimensions called "Structure Hardpoints."

(2) Production is the most costly phase, for in this phase occurs the detailed design, engineering, testing and tool expenditures, the tool tryouts, pilot assembly and production. Approval of the two major appearance

aspects of the vehicle, the exterior ("sheet metal") and instrument panel is scheduled to occur concurrently at 36 months; all other details follow. The first set of prototype vehicles, which embody initial designs and are constructed with prototype tools, are scheduled to be completed at 20-1/2 months before Job #1, for initial crash and durability testing. Information resulting from this testing will be used to refine the design of the vehicle. The second set of prototype vehicles also constructed with refined prototype tools, and scheduled to be completed six months later, will incorporate the design change made in view of the results of this testing. Testing of this second set of prototype vehicles will be used to validate the first tests and also to test additional performance aspects of the vehicles. A third set of prototype vehicles, employing a body structure produced by production tools but otherwise employing parts made by refined prototype tools, is completed at about 8-3/4 months before Job #1. This set is tested to ascertain whether design modifications made in view of previous test results have brought the vehicle per-

formance up to specification. In this way the vehicle design is gradually refined to achieve all objectives.

(3) All component parts must be trial assembled into vehicles ("functioned"), after being produced from production tools, to ascertain whether the designs were properly executed and whether all parts fit. Because the translation from engineering instructions to tooled parts may be imperfect, some parts may not fit and function properly the first time. Those parts must be made to fit and work cooperatively with other vehicle parts by revising design, tools, parts fabrication processes and/or vehicle assembly processes. To provide adequate time for this cut-and-dry procedure, production sample parts are scheduled to become available seven months prior to Job #1. This "Functional Program" is conducted at a pilot plant. Production parts are scheduled to be trial assembled into vehicles two months before Job #1, in a program at the assembly plants intended to familiarize plant personnel with the assembly processes and to test the feasibility of those processes for mass production. The actual Job #1 date is established upon

satisfactory completion of the sampling programs.

These principal steps of the current Ford Timing Standard and the corresponding times for their initiation or completion, as the case may be, are summarized in Exhibit III of this Appendix.

EXHIBIT I

KEY ACTIVITY GROUPS AT FORD
and their principal activities

Activity	
Planning	There are a number of groups concerned with predicting the kinds of vehicles which will be attractive to purchasers, preparing for Management consideration (with the aid of numerous other Company activities specializing, e.g., in marketing, finance, engineering and procurement) a proposal encompassing all aspects of each such vehicle, e.g., its appearance, features, dimensions, passenger and luggage capacity, mileage range, performance characteristics, cost and potential market, and, upon approval by Management of each vehicle proposal, guiding the development of the vehicle to production.
Advanced Engineering	This activity devises engineering concepts to meet the vehicle parameters determined by planning activities, for example, front wheel drive or rear wheel drive, the type of body construction, suspension configurations, and power-train configurations.

Design	This activity is concerned with developing the appearance of vehicles, and of most of their visible components, which embody concepts provided by the various engineering activities and by planning. In the course of such development, this activity sculpts full size clay models of such cars and of many of their components.
Component Engineering	These activities are charged with translating design and engineering concepts into engineering information required to manufacture components and vehicles.
Development Engineering	This engineering activity is concerned with achieving over-all vehicle and component performance to objectives of function, quality, and reliability—the "test track" people.
Procurement	These activities deal with the many outside suppliers of component parts, to translate component engineering information (blueprint drawings, die models, etc.) into production parts.
Basic Manufacturing Divisions	These divisions of Ford produce some production parts; the balance of these parts are made by outside suppliers.
Assembly Division	This activity initially trial-assembles ("functions") production parts into pilot-production vehicles, and after "prove-out" in pilot production, assembles these parts into mass production vehicles.

EXHIBIT II

FORD'S MAJOR CAR PROGRAMS BY MODEL YEAR OF VEHICLE INTRODUCTION

1978	1978¼	1979	1980	1981	1981½	1982
Fairmont/ Zephyr						
	Futura/Z7					
		Ford/Merc. Mustang/ Capri				
			Lincoln/ Mark T-Bird/XR7			
		Pinto/ Bobcat		Escort/ Lynx Granada/ Cougar		
					EXP/LN7	
						Continental

EXHIBIT III

CURRENT SUMMARY OF FORD NORTH AMERICAN AUTOMOTIVE OPERATIONS (dated 3/31/81)

	Step	Months Before Job #1
—	Start Vehicle Concepts — vehicle size, concepts in components explored e.g. suspension, bumpers, brakes, weight parameters	66
—	Start Advance Development — Start clay development to prove out concepts	54
—	Complete Advanced Mechanical Prototype — an operable vehicle to prove out and develop suspension, structure, and package (vehicle size)	43
—	Approve Structure Hardpoints/Select Prime Program (Start of Production Phase)	38
—	Approve Theme Clay Appearance — Sheetmetal and Instrument Panel	36
—	Complete Production Mechanical Prototype	31
—	Approve Program/Final Hardpoints	30
—	Complete First Prototype Level	20½
—	Complete Second Prototype Level	14½
—	Complete Third Prototype Level	8¾
—	Complete Engineering	10
—	Provide Production Samples/Start Functioning	7

* * * *

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 81-2220

STATE FARM MUTUAL AUTOMOBILE INSURANCE CO., *et al.*,

Petitioners,

v.

DEPARTMENT OF TRANSPORTATION, *et al.*,

Respondents

No. 81-2221

NATIONAL ASSOCIATION OF INDEPENDENT INSURERS, *et al.*,

Petitioners,

v.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, *et al.*,

Respondents

AFFIDAVIT

WILLIAM J. WITTENBERG, being duly sworn, deposes and says:

1. I am Assistant Chief Engineer, Fisher Body Division, General Motors Corporation (GM). I have been employed in this capacity since May 1, 1979, and have been employed by GM since June 1953. From February 1, 1978, to November 19, 1981, I was Project Manager of GM's Automatic Belt Project Center. The duties of this position included overall responsibility for design, development, and product release of automatic belt restraint systems for GM passenger cars. As part of these duties I was regularly called upon to establish and project lead

time requirements, and program content for the automatic seat belt programs.

2. I am familiar with the Court's request for information on the amount of time that would be required by automobile manufacturers to redevelop automatic seat belt programs in the event that the Court invalidates in whole or in part the NHTSA's rescission order issued on October 23, 1981.

3. In reaching the judgments expressed below I have made three very important assumptions:

(a) If the Court were to invalidate the rescission order, the performance requirements of FMVSS 208 would be identical to those in the standard prior to rescission. For example, I have not considered in this affidavit the substantial additional time that would be required if FMVSS 208 were to be amended so as to prohibit detachable automatic seat belts.

(b) The order of implementation of the automatic restraint requirements of FMVSS 208 would be the same as existed at the time of rescission. Specifically, I have assumed that FMVSS 208 would be effective at the beginning of the same model year for all passenger cars with a wheel base of more than 100 inches, and at the beginning of the following model year for all passenger cars with a wheel base of 100 inches or less.

(c) Outside engineering and tooling companies would be available in the same proportion as before the rescission, and no significant work delays or stoppages beyond our control would occur during the relevant time periods.

4. I am aware that the petitioners have contended that something on the order of a 4-6 month lead time is sufficient to put automatic seat belt programs into production. This contention appears to be based on the presumption that the replacement of current manual belts by automatic belts would simply be an exchange of similar components, much as manufacturers were able to "convert" to exclusive production of manual belts for their large cars after the granting of the one-year delay in the

effective date of the passive restraint requirements for those cars. This contention is not valid. Manual seat belts were incorporated in all vehicle lines at the time the one year delay was announced, so no "conversion" to manual seat belts was necessary. Thus, the delay did not require GM to remove or change any parts or components in its supply system or to change or remove any tools or other equipment in its production system.

Also, an automatic seat belt system that will meet the requirements of FMVSS 208 is more complex and much more difficult to develop and manufacture than the current manual belt system. For example, a typical vehicle restraint system utilizing automatic seat belts contains approximately twice as many component parts as one utilizing manual seat belts. This increased complexity is apparent from a comparison of the retractor hardware requirements for an automatic seat belt system (See Attachment 1) and a manual seat belt system (See Attachment 2). Moreover, manual belts represent existing technology and have been in production in various forms for many years. In contrast, automatic belt technology is still in a development stage, and none of the automatic belt systems that GM would use has ever been produced in quantity, or installed on a mass production basis.

Finally, manual belt programs would be required *even* if automatic restraint requirements were to be instituted. These programs would be necessary to provide for foreign markets where automatic seat belts are not required and in some cases, such as Canada, restricted by applicable standard. The imposition of automatic belt requirements would necessitate the addition of 36 different seat belt system configurations for the nine GM vehicle lines which would have required automatic belts in the 1983 model year, resulting in the proliferation of approximately 2250 new parts. In addition, vehicle modifications would be required to accommodate automatic belt attachment and to facilitate automatic belt system operation. For example,

modifications would be necessary in the following vehicle areas"

- Front Door Assembly
- Vehicle Interior Trim
- Underbody Assembly
- Front Seat Frames
- Vehicle Carpeting
- Roof Rail Assembly
- Center Console
- Center Pillar Assembly
- Wiring Harnesses
- Instrument Panels

Based on the above, it is apparent that a manufacturer's ability to "convert" to exclusive production of manual seat belts in six months does not demonstrate the ability to develop, manufacture, and incorporate automatic seat belt systems in the same time frame.

5. The lead time required for GM to redevelop automatic seat belt programs for its existing vehicle lines having wheel bases greater than 100 inches would be 21 months. This projection does not reflect the time required to complete any single automatic seat belt program. Rather, it is based on the effort required to complete design and development efforts on nine vehicle lines, e.g., X cars, J cars. These vehicle lines encompass 29 different models, e.g. Chevrolet Impala, Buick LeSabre, Oldsmobile 88, utilizing 64 different body shells (2 door, 4 door, station wagons, where applicable). These efforts would utilize reasonable business and resource allocation practices, and make maximum possible use of concurrent scheduling.

Further, the projection reflects the fact that the redevelopment of automatic restraint technology is not simply a continuation of previous efforts. Since the termination of our automatic seat belt programs on October 23, 1981, technical resources previously allocated to those programs, have been allocated to other areas. Additionally, much of the hardware used in that program has been diverted to other use or other-

wise disposed of. Finally, vendor contracts to engineer and fabricate automatic seat belt tooling have been cancelled. Significant efforts would be required to reinstate these activities due to the magnitude of our overall program.

The above lead time projection for existing vehicle lines would not be sufficient for future vehicle lines, i.e. those vehicles scheduled to begin production in model years after 1983. Automatic seat belt programs for future vehicles would not significantly benefit from development programs in place prior to the NHTSA rescission. At that time automatic seat belts for those vehicles were in a preliminary stage of development. Thus, the lead time would necessarily be longer.

Attachment 3 sets forth the necessary program elements upon which this lead time projection is based. It should be noted that many of these elements, which are described in the following paragraphs, take place concurrently. Thus, they must be considered collectively in terms of overall program lead time.

Reassemble Engineering Technology (3 mo.) refers to the effort necessary to reassemble both internal and external technical resources, including personnel, previously allocated to the automatic belt programs. This category also includes time to reestablish design, testing, hardware fabricating and tooling facilities of outside suppliers. Before the rescission over 200 GM engineering personnel and a substantial number of outside personnel were assigned to this project. This work force must be reassembled in an orderly fashion so as to preclude extensive disruption of other essential functions.

Evaluate Design Status (4 mo.) reflects the time that would be necessary to review the design status of each particular body style as it existed when the automatic seat belt project was terminated. Engineering data would have to be retrieved from storage areas, or data banks, and evaluated for design content and completeness. This would necessitate the review of thousands of design and test documents. Further, an evaluation would be required of revisions made to any of the 29

vehicle models since the rescission which could affect the automatic belt design.

Finalize System Design (4 mo.) is the effort required to update and complete the design. This would include any necessary belt system and vehicle modifications due to product revisions, and analysis of test data. It also includes finalizing and releasing production tooling drawings.

Obtain Verification Cars (2 mo.) refers to the time necessary to obtain approximately 145 production or prototype vehicles for verification and certification barrier tests. The vehicles originally obtained for this purpose have been sold or reallocated for other test purposes. Each of the vehicles obtained would have to be modified to incorporate automatic belts.

Pre-Prototype Retractor and Hardware Fabrication (3 mo.) — These items are early versions that are hand made and may not be fully functional, but are used for testing purposes.

Build Sled Test Body Fixtures (4 mo.) — Sled test body fixtures are basically the passenger compartments of production or prototype vehicles modified so they can be mounted on a pneumatic sled that simulates a crash impact. These tests are then analyzed and are an important tool in the development of proper restraint performance and component design.

Retractor and Hardware Prototype (3.5 mo.) are necessary for the fabrication of limited quantities of retractor and other hardware items to production type configurations for test and evaluation purposes. Sources for many of these tools would have to be obtained outside of GM.

Prototype Retractor and Hardware Build (9 mo.) is the effort necessary to produce limited quantities of hand built seat belt hardware for component impact sled and barrier testing. These first production type items are also used to make preliminary vehicle installations of automatic seat belt systems for evaluation purposes. Information from these evaluations is used to finalize system designs, as described above.

Release all Components (5 mo.) reflects the documentation effort to identify individual parts and authorize them for use on a particular design. This process also authorizes plants and vendors to take necessary action for planning floor space, and taking related actions.

Production Tools—Retractor and Hardware (9 mo.) and *Production Tools—Vehicle Interior Trim, Seats, Console (12 mo.)* are the activities required to build the tools, dies, and fixtures necessary for the manufacture of mass production parts at 11 metal fabricating plants, 11 trim and hardware fabricating plants, and 7 outside facilities designated to manufacture retractor assemblies. This also includes the process of assuring that the tools, as fabricated, will perform their necessary functions.

Development Sled Tests (3 mo.) are performed to finalize and optimize individual components so that they will meet all applicable performance and hardware requirements. These tests, utilizing components fabricated from prototype tooling, are performed on the sled test body fixtures described above.

Verification Sled Tests (6 mo.) are automatic seat belt system tests using components made to production configurations. These tests are utilized to assure that the performance of the system conforms to design intent.

Verification Barrier Tests (9 mo.) consist of crash tests utilizing the verification cars described above. The tests are conducted to supplement verification sled tests and to assure that the performance of the automatic seat belt system and its influence on other vehicle components are compatible with and conform to design intent.

Certification Barrier Tests (2 mo.) are barrier tests run to demonstrate compliance of production vehicles with the requirements of all applicable Federal motor vehicle safety standards.

Body Pilot Build (3 mo.) — The start of body pilot is a most important landmark in the manufacturing of our automotive body. The body pilot is the first assemby of bodies using all production type components in very limited quantities by

specially qualified personnel at facilities maintained for this purpose prior to the start of mass production. The main purpose is to uncover any tooling or assembly methods that do not function properly or produce quality parts or assemblies effectively. We would require approximately 3 months between the start of body pilot and the start of production to correct any discrepancies found during the pilot program and to stock 23 assembly plants with component parts.

6. The changes required to incorporate 36 automatic belt systems in the nine vehicle lines discussed in paragraph 5 above are so substantial that they could not be reasonably accomplished during production. These nine vehicle lines constitute GM's entire passenger car production, with the exception of three sub-compact models. As described in paragraph 3 above, the imposition of an automatic seat belt requirement would result in greatly increased complexity in the manufacturing process, and in a massive proliferation of parts. Thus, the changeover would require a complete shutdown of our 23 assembly plants for those vehicles for a minimum of three weeks, and could only be accomplished during a scheduled "shutdown period" for a regular model year changeover program without extensive disruption of production.

/s/ WILLIAM J. WITTENBERG
William J. Wittenberg

STATE OF MICHIGAN
COUNTY OF MACOMB

Before me this 28 day of January, 1982, appeared William J. Wittenberg, known to me to be the person whose signature appears above, and subscribed and sworn to the above affidavit, consisting of eight pages.

/s/ DONALD J. CASTLE
Donald J. Castle
Notary Public
Macomb County, Michigan
My Commission expires 3-25-84.

* * * *

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 81-2220

STATE FARM MUTUAL AUTOMOBILE INSURANCE CO., *et. al.*,
Petitioners,

v.

DEPARTMENT OF TRANSPORTATION, *et al.*,
Respondents.

No. 81-2221

NATIONAL ASSOCIATION OF INDEPENDENT INSURERS, *et al.*,
Petitioners,

v.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION,
Respondent.

NHTSA'S MEMORANDUM IN RESPONSE TO THE COURT'S AUGUST 4, 1982 ORDER

By order of August 4, 1982, this Court directed NHTSA to advise the Court by October 1, 1982, whether a September 1, 1983 "compliance date," for the passive restraint requirements of Federal Motor Vehicle Safety Standard 208, "is achievable, or whether a longer period is required, setting forth adequate reasons therefor." This memorandum constitutes NHTSA's response to the Court's inquiry. It is filed solely in response to the Court's directive, and without prejudice to the Agency's right to seek review of the Court's June 1, 1982 opinion and

August 4, 1982 order, or to proceed administratively to modify either the substantive requirements or compliance dates of Standard 208, if such modifications are determined to be necessary. For the reasons stated herein, and the attachments hereto, NHTSA advises the Court that should its opinion and supplemental order withstand Supreme Court review, a September 1, 1983 compliance date is *not* achievable, and that a significantly longer period than the thirteen months provided by this Court would be required for practicable compliance.

NHTSA has not yet conducted the necessary rulemaking to amend the effective date of Modified Standard 208. Should the Supreme Court of the United States deny respondents' Petition for a Writ of Certiorari already filed in this case, it would be necessary for NHTSA to conduct a rulemaking proceeding to consider technical amendments to the Standard before it could take effect, and to provide a practicable compliance date.

I. A SEPTEMBER 1, 1983 COMPLIANCE DATE FOR THE PASSIVE RESTRAINT REQUIREMENTS OF MODIFIED STANDARD 208 IS NOT ACHIEVABLE—A SUBSTANTIALLY LONGER PERIOD IS REQUIRED

Promptly after this Court's August 4th order, NHTSA, on August 9, 1982, requested current information concerning the ability of manufacturers to comply with the September 1, 1983 effective date, and the consequences to them if this compliance date remains in effect. Attached to this memorandum are affidavits and letters, furnished NHTSA in response to its request, from 19 automobile manufacturers accounting for approximately 98 percent of all vehicles sold in this country.

None of the manufacturers has stated that it would be able to comply with the reinstated automatic restraint requirement on September 1, 1983. Only Volkswagen of America and Toyota have represented that they might partially comply, but this compliance would be possible only with respect to vehicles which are already in car lines equipped with automatic belts, or where automatic belts are presently offered as an option. (*See* VW Haenchen Statement at 2; Toyota letter at 4.) Some major

manufacturers estimate that a lead time of 21 to 24 months would be required for those models which could be converted to automatic restraints most easily. (*See, e.g.*, General Motors Horvath Affidavit at 2; Ford Ross Affidavit at 2; Chrysler letter at 1; Nissan letter at 1; Toyota letter at 4; American Motors Jones Supplemental Affidavit at 1; Mitsubishi letter at 2.) Almost all manufacturers also state, however, that for many of their models compliance will not be possible until September 1985, and, in a few instances, even later. (*See, e.g.*, Subaru letter at 1; Toyota letter at 4; Isuzu letter at 1; Mazda letter at 1; Mitsubishi letter at 2; Rolls-Royce letter at 2; American Motors Jones Supplemental Affidavit at 1; Chrysler letter at 1.) Only the largest domestic and Japanese manufacturers, General Motors and Nissan, and two European manufacturers, Volvo and BMW, have said that a compliance date of September 1984 could enable them to continue marketing many of their models. (*See* BMW letter at 2; General Motors letter at 1; Volvo letter at 1; Nissan letter at 1.) Virtually all of these estimates are specifically premised on the assumption that Modified Standard 208 will not be amended (*see, e.g.*, General Motors letter at 1; Ford Ross Affidavit at 2; Chrysler Withrow Affidavit at 15; Toyota letter at 1; Mitsubishi letter at 2; Subaru letter at 1), and many on other assumptions discussed below.

As a group, the manufacturers cited numerous credible reasons why a September 1, 1983 compliance date is not achievable, and why the longer lead times specified are required.

First, a September 1, 1983 compliance date is particularly inappropriate for cars with a wheel base of less than 100 inches, sales of which constitute approximately 41 percent of current production. Under Modified Standard 208 as originally adopted in 1977, passive restraints were not required in small cars until September 1, 1983. However, Modified Standard 208 stood rescinded for almost 1 year, and, at least as of December 7, 1981, when this Court denied a stay of NHTSA's rescission of the passive restraint requirements of Modified Standard

208, manufacturers were fully justified in abandoning their passive restraint programs. Yet, notwithstanding that justifiable reliance by manufacturers, this Court's August 4th order would nonetheless require passive restraints in small cars by the same date as originally proposed.

Second, for both small and large cars, the passive restraint programs are not at the same point of development as they were when the manufacturers justifiably halted their programs. Because of the rescission, and this Court's denial of a stay, resources committed to automatic restraint compliance were properly diverted to other projects. (*See, e.g.*, Saab letter at 1; Jaguar letter at 2; Chrysler Withrow Affidavit at 3; Ford letter at 2.) Most significant in this process was the reassignment or release of skilled employees assigned to design teams—the reassembly of which is time-consuming, and made difficult by the present non-availability of some of those employees. (*See, e.g.*, General Motors letter at 2; Ford letter at 1-2; Chrysler Withrow Affidavit at 3-4; Saab letter at 1; Subaru letter at 1; Volvo letter at 2.) In any event, while changes in the design of various model lines went forward, the corresponding development of passive restraint systems to fit those redesigned models remained halted. (*See, e.g.*, Chrysler Withrow Affidavit at 5; Toyota letter at 3; Mazda letter at 1; VW Haenchen Statement at 3; Honda letter at 1; Jaguar letter at 2.)

Third, even after reassembly of the design team, the design problems for automatic restraint systems remain substantial. Separate and distinct automatic restraint system designs are required for different models within car lines. General Motors, for example, expected to design 36 different automatic seat belt configurations for its nine different car lines. (*See* Exhibit E to Brief of MVMA and AIA filed in this Court on February 1, 1982.) (*See also* Chrysler Withrow Affidavit at 5-8; Toyota letter at 3; Mitsubishi letter at 1.) Moreover, the redesign problems are not limited to a narrow portion of the vehicle interior. Vehicle parts and systems which might undergo redesign include the following: front door assembly, vehicle interior trim, underbody assembly, front seat frames, vehicle carpert-

ing, roof rail assembly, wiring harness, instrument panels and others. (*See, e.g.*, Chrysler Withrow Affidavit at 7-8; Toyota letter at 2.)

Fourth, all phases of the design, development, testing and production of automatic restraint systems cannot occur simultaneously—necessarily a *sequence* of time consuming steps must be completed by the manufacturers. Even after reassembly of the design team and the updating of design work to fit current models, numerous steps remain to be followed—none of which may be safely eliminated or advanced in the schedule. These steps include designing prototypes, obtaining prototypes, testing prototypes, designing final systems, obtaining finally designed parts, testing finally designed parts, obtaining certification, ordering parts, and retooling and converting production lines. (*See, e.g.*, General Motors Horvath Affidavit at 2-5; Ford letter at 1; Exhibit B to Chrysler Withrow Affidavit.)

Fifth, an early simultaneous compliance date for all models could exacerbate the renegotiation of contracts between the manufacturers and the limited number of passive restraint parts suppliers, as well as adversely affect those suppliers' delivery schedules. (*See, e.g.*, General Motors letter at 2; Volvo letter at 2; Jaguar letter at 2.) This problem may be aggravated for small manufacturers who are not equipped to simultaneously design, test, and produce different systems for different models (*See, e.g.*, Isuzu letter at 1; Saab letter at 1.) Further, an organization of active and passive belt manufacturers has informed NHTSA that its members need approximately nine months from the submission of final designs by the manufacturers in order to begin supplying restraint systems, and that as of September 3, 1982 they had not received those designs. (*See* Am. Seat Belt Council letter.)

Sixth, compliance with the passive restraint standard, especially early complaince, extracts a high cost from the manufacturers. General Motors has, in its most recent submission, estimated its costs at $375 million (General Motors letter at 2);

Ford has estimated costs of as much as $280 million (Ford letter at 2); and Chrysler's estimate is $100 million (Chrysler Steffen Affidavit at 3). Early compliance will require the diversion of resources and personnel from other programs, such as those for increased fuel efficiency and safety, at a cost to the manufacturer and the consumer. (*See, e.g.*, Chrysler letter at 1; Chrysler Withrow Affidavit at 14-15; Ford letter at 2.) Moreover, since the conversion of production lines in order to begin compliance can only be accomplished when the assembly plants are entirely shut down, the conversion should be scheduled to coincide with the start of a model year. A mid-model year shutdown would cause substantial loss of production and employment and therefore would be extremely costly to manufacturers and their employees. (*See, e.g.*, General Motors letter at 1; Mazda letter at 2; Chrysler Withrow Affidavit at 11-12.)

Finally, if the September 1, 1983 compliance date remains in effect, manufacturers unable to comply would be required to cease production until compliance could be attained. (15 U.S.C. §§ 1397, 1387.) To virtually all manufacturers the results of such disruption would be catastrophic. (*See, e.g.*, General Motors letter at 2; Ford Ross Affidavit at 4; Toyota letter at 4; Rolls-Royce letter at 1; Subaru letter at 3.) Chrysler has said that it could not survive as a corporation in such event. (Chrysler letter at 1; Chrysler Steffen Affidavit at 2.)

The submissions of the manufacturers have been reviewed by the expert technical staff of the National Highway Traffic Safety Administration. Based upon these submissions, and the record before the agency, NHTSA is of the opinion that the manufacturers have demonstrated convincingly that a September 1983 compliance date is impossible, and that the lead time estimates of the manufacturers are generally valid, accurate, and consistent with the engineering and economic circumstances which the agency finds to prevail in the industry at the present time. See Affidavit of Courtney M. Price, Associate Administrator for Rulemaking of NHTSA.

II. NHTSA, AND NOT THIS COURT, IS STATUTORILY EMPOWERED TO ESTABLISH A NEW EFFECTIVE DATE FOR MODIFIED STANDARD 208.

As Part I demonstrates, compliance by September 1, 1983 is not achievable. Although NHTSA received substantial comments from the manufacturers on the achievability of a September 1, 1983 compliance date, it cannot, of course, formally establish a new compliance date for Modified Standard 208 without conducting a rulemaking proceeding pursuant to the APA. Based on the manufacturers' submissions and the record to date, however, NHTSA hereby advises the Court that practicable compliance with Modified Standard 208 could not be achieved before September 1, 1985 at the earliest. *

This Court should not attempt to prescribe a new effective date for implementation of Modified Standard 208. As the Solicitor General has argued to the Supreme Court, "[i]t is for the Secretary, not the court, to determine in the first instance whether and when Modified Standard 208 should go into effect in light of existing circumstances. This determination then would be subject to judicial review only under the arbitrary

---

*There remains considerable doubt that uniform compliance could easily be achieved even in September of 1985. While some manufacturers assert that, under ideal conditions, compliance could begin for some car lines from 21 to 24 months after a final order, or theoretically as early as September of 1984 if the standard remains unchanged from its present form (*see, e.g.*, General Motors letter at 1), others have found that more than 36 months would be required in any event for some or all models. For such manufacturers (*see* Saab letter at 1; VW Haenchen Statement at 3), sale of such cars would be impossible even in September 1985. The basis for NHTSA's opinion that practicable compliance could not occur before September 1985 is that a model year start date (*i.e.*, September of any given year) is necessary and that any such date earlier than 1985 would preclude most if not all manufacturers from producing major car lines. Such a result would jeopardize the existence or economic integrity of several manufacturers, (*see, e.g.*, Chrysler letter at 1; Ford Ross Affidavit at 4).

and capricious standard. Once the court of appeals identified errors in the agency's decision, the court was barred from further 'dictating to the agency the methods, procedures, and time dimensions of the needed inquiry and ordering the results to be reported to the court without opportunity for further consideration on the basis of the new evidence by the agency.' *Vermont Yankee Nuclear Power Corp.* v. *NRDC*, *supra*, 435 U.S. at 544-545, quoting *FPC* v. *Transcontinental Gas Pipe Line Corp.*, 423 U.S. 326, 333 (1976)." *See* Petition for a Writ of Certiorari, *U.S. Department of Transportation, et al.* v. *State Farm Mutual Automobile Ins. Co., et al.*, No. 82-398 at 27-28 (filed September 8, 1982).

If the Supreme Court denies the Petition for a Writ of Certiorari filed by the Secretary, it will be time enough then for NHTSA to promptly conduct a rulemaking to consider new evidence from the manufacturers and other interested parties, and to provide a new effective date for Modified Standard 208. In any event, before the Standard could take effect, further rulemaking would be necessary to address various technical amendments to the Standard, such as the requirement for passive protection for the front center seating position, (*see* 46 Fed. Reg. 21,205 (April 9, 1981) and 46 Fed. Reg. 53,419 (Oct. 29, 1981))—a proposed amendment to the Standard which was pending before the Agency, but mooted by its decision to rescind. Any amendments to the Standard will change the obligations imposed on the manufacturers by this Court's August 4, 1982 order reinstating Modified Standard 208, and might require readjustment of the necessary lead time for compliance.

If the Petition for a Writ of Certiorari is granted there would be at that time compelling grounds for a stay of this Court's June 1st and August 4th orders. It would not be "practicable" or "reasonable" under the Safety Act (15 U.S.C. § 1392), to require manufacturers to begin compliance with a standard—that might yet be amended—which NHTSA believes it had lawfully rescinded, and the judicial reinstatement of which the Supreme Court had just agreed to review.

CONCLUSION

For the foregoing reason NHTSA concludes that a September 1, 1983 compliance date is not achievable, and that a substantially longer lead time is required.

Respectfully submitted,

OF COUNSEL:
FRANK BERNDT
Chief Counsel
STEPHEN P. WOOD
Assistant Chief Counsel
DAVID W. ALLEN
Assistant Chief Counsel
HUGH F. OATES
EILEEN T. LEAHY
SHIRLEY RANSOM
Attorneys
National Highway Traffic
Safety Administration
Department of Transportation
Washington, D.C. 20590

J. PAUL MCGRATH
Assistant Attorney General
/s/ Robert E. Kopp
ROBERT E. KOPP (202) 633-3311
Director, Appellate Staff
/s/ Michael F. Hertz
MICHAEL F. HERTZ (202) 633-3180
Appellate Litigation Counsel
/s/ Frederick Geilfuss
FREDERICK GUILFUSS (202) 633-5684
Attorney
Civil Division
Appellate Staff, Rm. 3617
Department of Justice
Washington, D.C. 20530

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 81-2220

STATE FARM MUTUAL AUTOMOBILE INSURANCE CO., *et. al.*,
Petitioners,

v.

DEPARTMENT OF TRANSPORTATION, *et al.*,
Respondents.

No. 81-2221

NATIONAL ASSOCIATION OF INDEPENDENT INSURERS, *et al.*,
Petitioners,

v.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION,
Respondent.

AFFIDAVIT OF COURTNEY M. PRICE

Courtney M. Price, being first duly sworn, deposes and says:

1. I am Associate Administrator for Rulemaking of the National Highway Traffic Safety Administration (NHTSA).

2. As Associate Administrator for Rulemaking, I am responsible for administering the NHTSA programs for setting standards under the various statutes administered by NHTSA, including Federal motor vehicle safety standards established under the National Traffic and Motor Vehicle Safe-

ty Act of 1966 as amended (the Safety Act). Federal Motor Vehicle Safety Standard 208, Occupant Crash Protection, is such a standard. The Rulemaking component of NHTSA reviews and evaluates submissions of manufacturers concerning lead times for compliance with standards, and provides technical, expert support for lead time decisions pursuant to Section 103(c) of the Safety Act.

3. I am familiar with the history and record of FMVSS 208 and with these proceedings for judicial review of the October 23, 1981 order of the Administrator rescinding the automatic restraint requirements thereof. I have reviewed the submissions of motor vehicle manufacturers to this Court and to NHTSA concerning the lead time questions which have been raised herein.

4. The subject of lead time was addressed by participants in the original rulemaking proceeding, because of the phase-in nature of such requirements as originally adopted (compliance requirement by size and type of vehicles for model years 1982 to 1984). This issue was also addressed in affidavits and a letter submitted on behalf of manufacturers with the joint brief of Intervenors Motor Vehicle Manufacturers Association and Automobile Importers Association, filed in this judicial review action, in February 1982.

5. After this Court entered its order of August 4, 1982, effecting reinstatement of such requirements with an effective date of compliance for all cars of September 1, 1983, the NHTSA Chief Counsel, Mr. Frank Berndt, sent letters to counsel for such intervenors requesting current information on the manufacturers' ability to comply with the reinstated requirement on or before September 1, 1983. Mr. Berndt's letter also requested manufacturers to describe the consequences to them if the September 1, 1983 compliance date were retained. NHTSA received written responses from nineteen manufacturers whose production accounts for approximately 98 percent of all new cars sold in the United States.

6. I and members of my staff have reviewed and analyzed these responses. All manufacturers have stated that they are unable to comply with the automatic restraint requirement on or before September 1, 1983. In fact, only Volkswagen and Toyota have said that they could partially comply on this date, and their partial compliance would involve only those car lines in which automatic restraints were already available as standard equipment or as an option. Some manufacturers have said that, if all contingencies were favorable, compliance would be theoretically possible for those car lines as to which prior design and engineering of automatic restraints had been underway, approximately two years after a final decision establishing the requirement. Most have also said that, for other more recently developed or planned car lines, compliance would not be possible until at least one year later. Because the compliance date for vehicles having less than 100-inch wheel bases was September 1, 1983 prior to rescission in October 1981, the reinstatement of the same simultaneous compliance date after almost one year of discontinued compliance efforts has the effect of significantly reducing the time for compliance in these smaller car lines. Cars under 100 inches in wheel base constitute approximately 41% of all cars sold in the United States.

7. The passive restraint programs are not at the same point of development as they were when the manufacturers halted their programs. After recission of the passive restraint requirements of Modified Standard 208, resources committed to automatic restraint compliance were diverted to other projects. Skilled employees assigned to design teams have been reassigned or released and may not be readily available.

8. After reorganization of the design teams, a time consuming effort must be completed by these teams before other production process changes can begin. Separate and distinct automatic restraint system designs are required for different models within car lines. General Motors, for example, expected to design 36 different automatic seat belt configurations for its nine different car lines. Vehicle parts and systems which

might undergo redesign include the following: front door assembly, vehicle interior trim, underbody assembly, front seat frames, vehicle carpeting, roof rail assembly, wiring harness, instrument panels and others.

9. In addition, all phases of the design, development, testing and production of automatic restraint systems cannot occur simultaneously. A sequence of time consuming steps must be completed by the manufacturer, and none of these steps can be eliminated or advanced in the schedule. These steps include designing prototypes, obtaining prototypes, testing prototypes, designing final systems, obtaining finally designed parts, testing finally designed parts, obtaining certification, ordering parts, and retooling and converting production lines.

10. An early simultaneous compliance date for all models could exacerbate the renegotiation of contracts between the manufacturers and the limited number of passive restraint parts suppliers, as well as adversely affect those suppliers' delivery schedules. This problem may be aggravated for small manufacturers who are not equipped to design, test, and produce different systems for different models simultaneously. Indeed, an organization of active and passive belt manufacturers has informed NHTSA that its members need approximately nine months from the submission of final designs by the manufacturers in order to begin supplying systems, and that as of September 3, 1982 they had not received any such designs. (*See* Am. Seat Belt Council letter.)

11. Early compliance will require the diversion of resources and personnel from other programs, such as those for increased fuel efficiency and safety, at a cost to the manufacturer and the consumer. Moreover, since the conversion of production lines in order to begin compliance can only be accomplished when the assembly plants are entirely shut down, the conversion should be scheduled to coincide with the start of a model year. A mid-model year shut-down would cause substantial loss of production and employment and therefore be extremely costly to manufacturers and their employees.

12. Compliance with the passive restraint standard, especially early compliance, extracts a high cost from the manufacturers. General Motors has, in its most recent submission, estimated its costs at $375 million; Ford has estimated costs of as much as $280 million; and Chrysler's estimate is $100 million.

13. Finally, if the September 1, 1983 compliance date remains in effect, manufacturers unable to comply would be required to cease production until compliance could be attained, in order to avoid production and sale of nonconforming vehicles in violation of the Safety Act. To virtually all manufacturers the results of such disruption would have great adverse consequences. General Motors has predicted that such consequences would be catastrophic, and we believe that this would be true of nearly all manufacturers. Chrysler has said that it could not survive as a corporation if the losses caused by such disruption were to occur.

14. The submissions of the manufacturers have been reviewed by the expert technical staff under my supervision. Based upon these submissions, and the record before the agency, it is my conclusion and that of our technical staff that the manufacturers have demonstrated convincingly that a September 1983 compliance date is impossible, and that the lead time estimates of the manufacturers are generally valid, accurate and consistent with the engineering practices and economic circumstances which prevail in the industry at the present time.

I have read the foregoing 14 paragraphs. The statements contained therein are true and correct to the best of my knowledge.

/s/ Courtney M. Price
COURTNEY M. PRICE
Associate Administrator
for Rulemaking

Subscribed and sworn before me
this 30th day of September 1982

/s/ Stanley C. Feldman
STANLEY C. FELDMAN
Notary Public
My commission Expires on
December 14, 1982

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 81-2220

STATE FARM MUTUAL AUTOMOBILE INSURANCE CO., *et. al.*,
Petitioners,

v.

DEPARTMENT OF TRANSPORTATION, *et al.*,
Respondents.

No. 81-2221

NATIONAL ASSOCIATION OF INDEPENDENT INSURERS, *et al.*,
Petitioners,

v.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION,
Respondent.

STATE FARM'S MEMORANDUM IN RESPONSE TO NHTSA'S COMMENTS ON THE SEPTEMBER 1983 EFFECTIVE DATE

Petitioners State Farm Mutual Automobile Insurance Company *et al.* ("State Farm") respectfully submit this memorandum in response to the National Highway Traffic Safety Administration's ("NHTSA") October 1, 1982 memorandum to this Court. In that submission, NHTSA contends that compliance with the passive restraint requirement as of September 1983 is not feasible and that the agency, not this Court,

should determine when the reinstated standard will take effect.

State Farm suggests that the Court withhold ruling on NHTSA's request for delay, pending the Supreme Court's disposition of the petitions for writs of certiorari in this case. When this Court does address NHTSA's request, State Farm submits that, based upon the present record, it should decline to postpone reinstatement of the rule beyond September 1983.

I. THE COURT SHOULD NOT MODIFY ITS ORDER UNTIL THE SUPREME COURT DISPOSES OF THE PETITIONS FOR WRITS OF CERTIORARI

The respondents and several intervenors in this case have petitioned the Supreme Court for writs of certiorari. State Farm is filing its brief in opposition today, and the Court can be expected to rule within a month. NHTSA requests that, after the Supreme Court has ruled on those petitions, the agency should be allowed to set a new effective date for implementation of the passive restraint rule. Like NHTSA, State Farm believes that the present effective date of the passive restraint rule should not be reevaluated until the Supreme Court has disposed of the certiorari petitions. A denial of certiorari will assuage the automakers' concern that their efforts will be wasted if the agency's rescission is upheld. If, on the other hand, the petitions are granted, then NHTSA has indicated that it will seek to stay this Court's rulings in their entirety. A decision now as to the standard's effective date would effectively be nullified if a stay were granted. In either case, therefore, the more efficient course is for this Court to withhold its decision on NHTSA's requests for delay until the Supreme Court has disposed of the certiorari petitions.

State Farm submits that the effective date of the reinstated rule should be determined by this Court, not by NHTSA. NHTSA's insistence that it should set a new effective date for the passive restraint rule rests upon a fundamental misunderstanding of the Court's August 4 order. That order did not direct NHTSA to *adopt* a passive restraint requirement with a

September 1983 effective date. Rather, once NHTSA's rescission of the rule was reversed, the rule was automatically reinstated as it had stood prior to the unlawful rescission. In recognition of the fact that immediate compliance was impossible, the Court stayed enforcement of the rule until September 1983.

NHTSA's argument would make sense if the decision reviewed by this Court had been one postponing the effective date of the passive restraint rule; the appropriate remedy in that situation, following reversal, would have been a remand to NHTSA for redetermination of the effective date. Here, by contrast, the issue is equitable effectuation of the Court's decree restoring the *status quo ante litem;* the arbiter of that decision should be the Court itself, not the losing party.

II. THE COURT SHOULD REJECT ANY ADDITIONAL DELAY BEYOND SEPTEMBER 1983

A person unfamiliar with the twelve-year history of Motor Vehicle Safety Standard 208 would surmise from NHTSA's memorandum that on August 4, 1983, the passive restraint requirement sprang, like Athena, fullblown from the head of Zeus. That is not the case. The motor vehicle manufacturers have been preparing to install automatic seat belts since 1977. When NHTSA postponed the rule in April 1981, the manufacturers were preparing to comply by September 1981—a deadline less than five months away. Yet NHTSA would now have this Court believe that it would take automakers three years, or even longer, to comply with the reinstated standard.

Based upon the present record, the Court should decline to postpone the effective date of the passive restraint rule beyond September 1983. the delay in implementation has already been excessive, and the manufacturers' prophecies of doom are not credible.

A. Implementation Has Already Been Delayed Excessively

This Court is familiar with the delays that have plagued the passive restraint rule since the start of rulemaking proceedings in 1969. Despite those delays, compliance with the rule was at last at hand when NHTSA suddenly postponed the standard on the eve of Model Year 1982 production. NHTSA's April 1981 order pushed back the commencement of implementation from September 1981 to September 1982. And NHTSA's subsequent unlawful rescission of the rule has already resulted in an additional one-year delay in compliance with respect to large- and intermediate-sized cars. In response to this Court's finding that NHTSA acted unlawfully in rescinding the passive restraint rule entirely, NHTSA now seeks to achieve virtually the same result by postponing the effectiveness of the rule from Model Year 1983 to Model Year 1986 or beyond.

Such a delay would be tragically costly in terms of lives lost and injuries suffered. In seeking additional years before it enforces the passive restraint rule, NHTSA has ignored completely the human and economic consequences of further delay. As Professor William D. Nordhaus explained in an affidavit already filed in this case, each year of delay in implementation will result in 6,400 deaths and 120,000 moderate-to-critical injuries that would have been avoided had passive restraints been in place. Each year of delay will result in net economic injury to the nation (beyond the countervailing costs to the automakers) of $2.4 billion. Nordhaus Affidavit, ¶ 3 [attached to State Farm's Memorandum in Support of Motion for a Stay as App. B]. For the convenience of the Court, a copy of the Nordhaus Affidavit is attached hereto.

These are factors that NHTSA, despite its safety mandate, has ignored, but that this Court should weigh against the asserted burdens of complying with the passive restraint rule by September 1983. Implementation of the passive restraint rule is not simply a question of flow charts and sled tests: it is also a question of death, injury, and massive economic loss.

This Court should not tolerate additional delay beyond that already caused by NHTSA's unlawful rescission of the standard.

B. The Court Should Reject The Manufacturers' Lead-Time Estimates

The motor vehicle manufacturers' prophecies of doom should not be surprising. At every turn in the history of the passive restraint rule, the automakers have warned of their absolute inability to comply with whichever deadline approached. But as NHTSA itself recognized a decade ago, the manufacturers' lead-time estimates are based upon "some funding level which they do not plan to exceed": "[w]hen a company says they cannot meet [a target date] . . . they are really saying they cannot meet this date within the funds they have chosen to allocate to th[e] program." C.D. Ferguson, Director of DOT Office of Crashworthiness, NHTSA, Memorandum to the Docket (June 24, 1971). That observation is wholly applicable here: the automakers have established not that installation of passive restraints is impossible by September 1983, but only that it would cost more than they care to expend.

In assessing the automakers' lead-time estimates, the Court should bear in mind the Justice Department's previous observation in defending the passive restraint rule that this case involves "something as simple as seat belts." Brief for the Department of Justice, at 64, *Chrysler Corp.* v. *DOT*, 472 F.2d 659 (6th Cir. 1972). NHTSA's assertion that implementation could not occur for three or more years is simply incredible. Ford and General Motors have stated, for example, that the normal lead time *for completely new vehicles* is only three to three and one-half years. *See* Geschelin, *Lead Time Practices*, Automotive Industries (July 15, 1967), at 60-62. *Cf.* Childs Affidavit (Ford), App. at 5 [attached to MVMA Brief as Ex. C] (development period for new exterior body is 38 months; development period for entirely new vehicle is 5½ years). The automakers' details as to the number of individual parts involved or

the number of tests that occur should not be allowed to make the process appear more complicated than it actually is.

This is not a case of technology-forcing. The automakers may comply with the rule by installing detachable seat belts—the very devices that they claim to prefer. The manufacturers have been preparing to install automatic seat belts since 1977. When NHTSA postponed the rule in April 1981, the automakers were only *five months away* from actual compliance. Yet they now propose elaborate research, development, and testing programs as if these years of preparation had never occurred and as if the installation of automatic seat belts were comparable to the design and building of an entire automobile.

To the extent that the manufacturers cannot simply restart the programs as they stood at the time of rescission, that inability is largely self-inflicted. The automakers began to dismantle their passive restraint programs within hours of the announcement of rescission—many weeks before the rescission order was scheduled to take effect.* *See State Farm Mutual Automobile Insurance Co.* v. *DOT*, 680 F.2d 206, 241 & n.45 (D.C. Cir. 1982) [hereinafter cited as *"State Farm"*]. It now appears that some automakers did not merely scatter the expert employees involved: they "scrapped" or "dispersed" the prototypes, molds, and tools used in the programs. *See e.g.*, Whittenberg Affidavit (General Motors), ¶ 5 [attached to MVMA Stay Opposition as Ex. C] (termination of automatic seat belt program included "the diversion or disposal of engineering test materials and vehicles"); DeCaluwe Affidavit (Chrysler), ¶ 5 [attached to MVMA Stay Oppositions as Ex. E] (delay in reinstating passive belt programs caused in part "by the dispersal of drawings, hardware, data, development cars, equipment"); Whittenberg Affidavit (General Motors), ¶ 5 [attached to MVMA Brief as Ex. E] (one cause of delay is that "much of the hardware . . . has been diverted to other use or

*Although the rescission order was announced on October 23, 1981, its effective date was December 8, 1981.

otherwise disposed of"); Kawano Letter (Toyota) at 3 [attached to NHTSA Oct. 1 Memorandum] ("We have already scrapped the molds, attachments and tools necessary to produce the prototypes, as well as the prototypes themselves. So, in order to restart our automatic belt program, we have to reproduce the molds, attachments and tools necessary to reproduce the prototype itself."); Haenchen Statement (Volkswagen), at 3 [attached to NHTSA Oct. 1 Memorandum] ("finished tools unique to the automatic restraints were disposed of and are no longer available"). The manufacturers should not now be allowed to bootstrap their own pell-mell destruction of the passive restraint programs into a justification for several more years delay.

At every stage in this litigation, the manufacturers' lead-time estimates have grown. In opposing State Farm's motion for a stay in December 1981, several automakers suggested relatively moderate lead-time estimates. For example, Ford indicated in December 1981 that it could install detachable belts by November 1982 and nondetachable belts by September 1983. Childs Affidavit, ¶¶ 5, 7 [attached to MVMA Stay Opposition as Ex. D]. Chrysler, too, indicated that it could begin installing automatic seat belts in November 1982. DeCaluwe Affidavit, ¶ 4 [attached to MVMA Stay Opposition as Ex. E]. In responding to the Court's question on lead time in their brief on the merits, the automakers began to increase the complexity of, and time required for, installation of automatic belts. Chrysler now claimed that it would need over two years lead time. Withrow Affidavit, ¶ 6 [attached to MVMA Brief as Ex. B]. American Motors claimed to need three years. Jones Affidavit, ¶ 4 [attached to MVMA Brief as Ex. A]. The foreign manufacturers claimed to need anywhere from one to four years. Nield Letter, at 2 [attached to MVMA Brief as Ex. F]. Yet, as the Court noted in its June 1 opinion, some of the manufacturers acknowledged that they could install passive restraints after a full model year's lead-time. *State Farm* at 240-41. *See, e.g.*, Childs Affidavit (Ford), ¶ 8 [attached to MVMA Brief as Ex. C] (replacing active belts with passive

belts would take 60 to 67 weeks); Edwards Affidavit (Ford), ¶ 6 [attached to MVMA Brief as Ex. D] (same).

Now, NHTSA claims that "practicable compliance . . . could not be achieved before September 1, 1985 at the earliest" and that "[t]here remains considerable doubt that uniform compliance could *easily* be achieved" even then. NHTSA Memorandum at 8 (emphasis added). Several of the automakers, however, concede that they could install passive belts in less than two years. *See, e.g.*, Horvath Affidavit (General Motors), ¶ 5 [attached to NHTSA Oct. 1 Memorandum] (21 months); Mori Letter (Honda), at 1-2 [attached to NHTSA Oct. 1 Memorandum] (substantial compliance within 24 months); Shapiro Letter (Volvo), at 2 [attached to NHTSA Oct. 1 Memorandum] (24 months). Others represent that they would like up to three to four additional years to comply. *See, e.g.*, Jones Affidavit (American Motors), ¶ 4 [attached to NHTSA Oct. 1 Memorandum] (24 to 36 months); Withrow Affidavit (Chrysler), ¶ 6 (three years after reassembly of staff); Gustavsson Letter (SAAB), at 1 [attached to NHTSA Oct. 1 Memorandum] (four years for passive belts, six years for airbags).

Underlying the manufacturers' estimates is their desire to avoid disruption of their other production goals. *See, e.g.*, Price Affidavit (NHTSA), ¶ 11 [attached to NHTSA Oct. 1 Memorandum]; Ross Affidavit (Ford), ¶ 7 [attached to NHTSA Oct. 1 Memorandum]; Withrow Affidavit (Chrysler), ¶ 7 [attached to NHTSA Oct. 1 Memorandum]. The lead-time issue is, therefore, a question of priorities. Should the automakers devote their resources to installation of lifesaving restraints, or to other vehicular changes, many of which are purely aesthetic? In passing the 1966 Safety Act, Congress directed NHTSA to make safety "the overriding consideration in the issuance of standards," *State Farm* at 209 n.3; and, until now, NHTSA has not allowed the automakers to relegate occupant crash safety to a subordinate position.

NHTSA's submission is not entitled to deference. At every stage in these proceedings, NHTSA has pressed for further delay. Moreover, NHTSA appears not to have exercised *any* judgment (or to have solicited other parties' views) in evaluating the automakers' estimates. It simply accepted those statements without ascertaining the priorities and assumptions that underlie the manufacturers' projections.

Given NHTSA's earlier abdication to the industry's preference for detachable belts, and its postponement of the rule because of the "difficulties of the automobile industry," 46 Fed. Reg. 12,033 (Feb. 12, 1981), this Court may infer that NHTSA's judgment has again "been distorted by solicitude for the economically depressed automobile industry—which is not the agency's mandate—at the expense of consideration of traffic safety, which is." *State Farm* at 240 (footnote omitted). Indeed, *nowhere* in NHTSA's submission is there a *single* mention of the thousands of lives that will be lost if the Court accepts the agency's lead-time recommendation. As before, NHTSA has simply abdicated its statutory responsibilities in favor of the desires of the regulated industry.

CONCLUSION

State Farm urges the Court to withhold ruling on NHTSA's request until after the Supreme Court disposes of the certiorari petitions, and then to reject any additional delay. State Farm recognizes the automakers' assertion that installation of passive restraints by September 1983 might require them to divert resources from endeavors that they prefer to vehicular safety. Those burdens are heavily outweighed, however, by

the human and economic loss that would result from further delay.

Respectfully submitted,

/s/ James F. Fitzpatrick
JAMES F. FITZPATRICK
Michael N. Sohn
John M. Quinn
Merrick B. Garland
Boris Feldman

ARNOLD & PORTER
1200 New Hampshire Avenue, N.W.
Washington, D.C. 20036
(202) 872-6700

Counsel for Petitioners
in No. 81-2220

Of Counsel:

DONALD P. MCHUGH, ESQ.
Vice President and General Counsel
State Farm Mutual Automobile
Insurance Company

DATED: October 8, 1982

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 81-2220

STATE FARM MUTUAL AUTOMOBILE INSURANCE CO., KENT MASON, PATRICIA WARREN and LEORLIN FOYD,
Petitioners,

v.

DEPARTMENT OF TRANSPORTATION, DREW LEWIS, as Secretary, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, and RAYMOND A. PECK, JR., as Administrator,
Respondents.

CITY OF NEW HAVEN)
) ss.
STATE OF CONNECTICUT)

AFFIDAVIT OF WILLIAM D. NORDHAUS

WILLIAM D. NORDHAUS, being duly sworn, deposes and says:

1. My professional background is the following. I am currently the John Musser Professor of Economics at Yale University, whose faculty I joined in 1967. I received my B.A. in Economics from Yale University in 1963, and my Ph.D. in Economics from M.I.T. in 1967. From 1977 to 1979, I served as a Member of the President's Council of Economic Advisors with responsibilities for regulatory and microeconomic policies. As part of those duties, I organized and served as the first chairman of the Executive Branch Regulatory Analysis Review Group until February 1979. Throughout my professional career, I have conducted a broad range of economic research, including the analysis of costs and benefits of numerous gov-

ernmental policies and regulations. My curriculum vitae is attached to this affidavit.

2. I am completely familiar with the recent Order of the Department of Transportation rescinding requirements for installation of automatic restraints in passenger automobiles. In March and May of this year, I submitted Comments in the rulemaking proceedings which preceded issuance of the automatic restraints order. Those Comments were sponsored by Allstate, Kemper, Nationwide, State Farm, and Travelers Insurance Companies. The views expressed—both in those Comments and in this affidavit—are my personal views and do not necessarily represent the views of any of the aforementioned institutions.

3. The Comment which I filed with the Department of Transportation on May 26, 1981, described in detail the results of an economic cost/benefit analysis which I performed on the scheduled requirements for installation of automatic restraints in large and mid-size cars in Model Year 1983 and small cars in Model Year 1984. A summary of my conclusions is the following:

a. Using the Agency's own data and basic methodology, the automatic restraint requirements, when fully phased in, would have *net* economic benefits of approximately $2.4 billion per year. Cumulatively, the total discounted net societal benefits would be $33 billion.

b. Put another way, rescission of the entire automatic restraint schedule would cost the nation $2.4 billion for every year of delay. The costs of rescission are 3½ times the benefits.

c. In terms of injuries and fatalities, the effect of rescission of the entire automatic restraint standard would be to increase fatalities by approximately 6,400 per year, and increase moderate-to-critical injuries by at least 120,000 per year.

d. The estimated impact of the rescission on the automobile industry is miniscule.

4. The Department of Transportation has now issued an order rescinding the automatic restraint standard, effective December 8, 1981. Given the lead time necessary for implementing so complex a standard, it is clear that if rescission remains effective for even a brief period, the most optimistic result would be that the introduction of automatic crash protection would be delayed for one year for large and intermediate vehicles—even if the Court were later to reverse the rescission.

5. The effect of this kind of delay will be grave and irreparable in terms of life and limb. In my May Comment, I concluded that the consequences of a one year delay of the completely phased in automatic restraint schedule would be an increase in traffic fatalities of 6,400 and an increase in moderate-to-critical injuries of approximately 120,000. When these figures are adjusted to predict the effect of a one year delay for large and intermediate cars alone, the results are 3,000 additional fatalities and 60,000 moderate-to-critical injuries.

6. A delay in implementation would also yield substantial economic costs. One such cost, of course, is the monetary losses the nation would suffer as a consequence of the deaths and injuries discussed in Paragraph 8 below. Another such cost is automobile insurance. In my May Comment, I estimated the additional insurance costs of rescission would be approximately $150 per vehicle over its lifetime. On the basis of this methodology, the cost of a one year delay for both large and intermediate cars would be approximately $750 million. Impacts on insurance costs of this magnitude will have a significant effect on the profits of the automobile insurance industry.

7. By contrast, the benefits to the auto industry of either delay or rescission are miniscule. As I indicated in my May comment, and as NHTSA's own figures reveal, the automakers are likely to raise prices by more than enough to offset the effect of sales on their revenues. Taking intermediate cars as an example, the Agency estimates that in the long-run the

consumer price increase for automatic restraints would be $75 per vehicle. The Agency takes 63% of this to be normal variable cost—indicating a variable cost of around $50 per vehicle. According to the Agency's methodology, the price increases resulting from the standard would more than offset the cost increase, and automakers' profits will rise slightly. While the quantitative effects on automakers' profits cannot be precisely determined, it is my judgment that the effect of the rescission on the health of the auto industry will be negligible. These estimates of long-range impacts on revenues and profits are also reasonable approximations of the effect of a one year delay.

8. In my May Comment, I analyzed the total economic costs and benefits of a one year delay of the entire automatic restraint schedule, and concluded that the *net* economic damage to the nation was approximately $2.4 billion. Adjusting that analysis for a one year delay of large and intermediate cars, the methodology used in my Comment yields a *net* societal cost of over $1 billion.

9. The methods and conclusions in my Comments were in general accepted by the Agency in its Final Regulatory Impact Analysis (October 1981). Although the Agency's conclusions were marred by numerous inconsistencies and errors, the major divergence between the Agency and my Comment lies in their analysis of usage of automatic restraint systems. The Agency's discussion does not disagree with the estimate of usage of current designs of automatic belts given in my Comment; indeed their review of studies of incremental usage shown on page IV-52 shows an increase exactly equal to that in my Comment. Instead, the Agency's case rests on the assertion that automatic belts in the future will be detachable and further that these designs will be completely ineffective. It is my professional judgment that *the Agency's argument on the ineffectiveness of detachable automatic belts is completely without empirical foundation.*

10. I am not familiar with any instance, prior to the present phase of this rulemaking, where as here, a regulatory agency has rescinded a safety standard whose objectives can be achieved by existing designs, solely because portions of the industry have stated that they intend to choose an inferior design that does not achieve the acknowledged regulatory objective. This is particularly disturbing where, as in the present case, the agency is authorized to issue standards which require the industry to develop new technology in furtherance of the safety objectives of its statutory mandate. Rescission of an important health and safety standard on this basis makes a mockery of the process of setting performance standards.

11. Finally, the enormity of the impact of rescission on the nation simply cannot be stressed enough. As I stated in my May Comment,

> "[T]he passive restraint rule is, from an economic point of view, as important as any environmental, health, or safety rule on the books. If the estimates of the impact on fatalities and injuries are accurate, a rescission would be equivalent to repealing a law that cuts in half the homicide rate. It is equivalent to foregoing the medical advances that allowed the virtual elimination of death from tuberculosis over the last quarter century. According to some estimates, it is equivalent to repealing the Clean Air Act."

/s/ William D. Nordhaus
WILLIAM D. NORDHAUS

Subscibed and sworn to before
me this 23rd day of November, 1981

/s/ Paula M. Sadille
PAULA M. SADILLE
Notary Public

My Commission Expires: March 31, 1983.

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 81-2220

STATE FARM MUTUAL AUTOMOBILE INSURANCE CO., *et. al.*,
Petitioners,

v.

DEPARTMENT OF TRANSPORTATION, *et al.*,
Respondents.

No. 81-2221

NATIONAL ASSOCIATION OF INDEPENDENT INSURERS, *et al.*,
Petitioners,

v.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION,
Respondent.

STATE FARM'S SUPPLEMENTAL MEMORANDUM IN RESPONSE TO NHTSA'S OCTOBER 1 SUBMISSION

Petitioners State Farm Mutual Automobile Insurance Company *et al.* ("State Farm") submit this supplemental memorandum to bring to the Court's attention a recent report by lead-time analysts of the National Highway Traffic Safety Administration ("NHTSA") that states that about 85% of the automobiles sold in this country could be equipped with passive restraints by September 1, 1984. That information has not previously been brought to the Court's attention, and it bears

directly on NHTSA's recent request that implementation of the passive restraint standard be delayed until September 1, 1985 or even later.

* * *

On October 1, 1982, NHTSA submitted a memorandum to the Court urging that the compliance date of the passive restraint standard be postponed from September 1983 to September 1985. Specifically, NHTSA advised this Court that "practicable compliance with Modified Standard 208 could not be achieved before September 1, 1985 at the earliest" and that "[t]here remains considerable doubt that uniform compliance could easily be achieved even in September of 1985." NHTSA's Memorandum in Response to the Court's August 4, 1982 Order at 8 [hereinafter cited as "NHTSA Memorandum"].

On October 19, Petitioners received a copy of a report by NHTSA's Senior Cost and Lead Time Specialist that sheds important new light on the lead-time issue.[1] The House Subcommittee Chairman who circulated that Report to his Subcommittee described its significance as follows:

> On October 1, 1982, NHTSA asserted to the Court that there is "considerable doubt" that automakers could install automatic crash protection even by model year 1986. NHTSA's assertion contradicts an analysis prepared by

---

[1] The Lead Time Report was made available to Petitioners on October 19, 1982, by the office of Congressman Edward J. Markey, a member of the Subcommittee on Telecommunications, Consumer Protection, and Finance of the House Committee on Energy and Commerce. (A copy of the Report is attached hereto as Appendix A.) Congressman Markey received the Report from Chairman Wirth, who distributed it to the Subcommittee, along with a covering memorandum and a copy of correspondence between himself and NHTSA Administrator Raymond Peck. (Copies of that memorandum and exchange of correspondence are attached as Appendices B, C, and D, respectively.)

> the agency's foremost experts in cost and lead time estimates, which concludes that 81% compliance with the standard could be achieved by model year 1985, with full compliance in model year 1986.

Memorandum from The Honorable Timothy E. Wirth to the Subcommittee on Telecommunications, Consumer Protection, and Finance, October 19, 1982 (*see* Appendix B).[2]

Specifically, the NHTSA analysis state that "By September 1, 1984, 6,649,214 [cars] or 85.3 percent of total production could comply [with the passive restraint standard]." *Final Report: Analysis of Manufacturers Comments on the Lead Time Required to Install Automatic Restraints in Cars [FMVSS 208)*, at 1 [hereinafter cited as *"Lead Time Report"]*. The Report goes on to explain:

> This date [September 1, 1984] would be feasible for most cars that would be sold in the U.S. at that time, but would still require significant compression of leadtime schedules for some car lines. Nevertheless, if this were established as the effective date, only a few special car lines would cease being sold in the U.S. for lack of an automatic restraint.

Id. at 24.

---

[2] In his October 12 letter to Administrator Peck, Congressman Wirth stated that he had received "several extremely disturbing reports" that agency staff had prepared an analysis of the automakers' lead-time estimates, but that copies of that analysis had been removed from circulation and perhaps destroyed.

On October 15, 1982, Administrator Peck responded to Congressman Wirth's letter, enclosing a copy of the Report. Although Administrator Peck claimed that his staff felt that the report "was not in any way inconsistent with the agency's submission," he nevertheless challenged the accuracy of the Report and sent Congressman Wirth a memorandum that criticized the staff analysis for "bias" and for being "insensitive to the economic consequences of firms' inabilities to comply by a specified date." *See* App. D, Felrice Memorandum.

A fair reading of the NHTSA staff Report leads one to conclude that the agency's proposal for postponement of the effective date of the standard until 1985 is unwarranted. More important, the fact that NHTSA failed to bring to the attention of the Court the technical analysis prepared by its own expert staff dictates that the agency not be afforded judicial deference on the lead-time issue. State Farm continues to believe, for the reasons set forth in its earlier memorandum, that the Court should not resolve that issue until the Supreme Court has disposed of the petitions for writs of certiorari.

The Report's Findings

The Lead Time Report was prepared under the supervision of Dr. Carl E. Nash, Director of the Engineering Systems Staff, by members of NHTSA's Engineering Systems Staff and Cost and Lead Time Staff. The authors of the Report were Charles Westphal, Jr., NHTSA's Senior Cost and Lead Time Specialist, and Richard C. Carter, a Program Analyst. The analysis, which is dated September 1982, is labelled "Final Report" and appears to be in final form (although the word "Draft" has been stamped over the words "Final Draft" on the cover page and on each subsequent page).

In its October 1 submission to this Court, NHTSA asserted that "practicable compliance with Modified Standard 208 could not be achieved before September 1, 1985 at the earliest." NHTSA Memorandum at 1. Yet the accompanying affidavit of NHTSA Associate Administrator Courtney M. Price carefully avoided saying that compliance could not be achieved before 1985; that affidavit merely stated that compliance by September 1983 was "impossible." *See* Price Aff. ¶ 14.

The reason for Associate Administrator Price's refusal to endorse under oath the 1985 deadline is now apparent: NHTSA's own lead-time experts had recognized that, even accepting the automakers' own estimates, substantial compliance was achievable well before that date. Their Lead Time Report summarized the lead-time estimates submitted by

manufacturers who account for 97% of the nation's car sales. It stated that, *based upon the automakers' own estimates*, 85.3% of their cars could comply with the passive restraint rule by September 1, 1984. *Lead Time Report* at 1. It is difficult, if not impossible, to square that statement with NHTSA's assertion to this Court that "any such [compliance] date earlier than 1985 would preclude most if not all manufacturers from producing major car lines." NHTSA Memorandum at 9 n.*.

Nowhere in its October 1 submission did NHTSA apprise the Court of these critical statements from the Lead Time Report. The Price Affidavit makes no reference to when *after* 1983 compliance would be possible. NHTSA's memorandum skips from 1983 to 1985 as if 1984 were not an option — even though the agency's own experts concluded that 85% compliance was possible by that date.

Moreover, the Lead Time Report casts further doubt upon NHTSA's claim that meaningful compliance by 1983 is impossible, as well as upon NHTSA's preferred date of 1985. The Report recognizes that compliance by 1983 "is completely realistic" for cars that already offer automatic seatbelts as standard or optional equipment. *Lead Time Report* at 21. In addition, the staff stated that the 1983 deadline *could* be met for cars "that had completed designs for automatic belts that have been tested and determined to be satisfactory." *Id.* Although the staff felt that this category "would *probably* include only a minority of car lines," they stated that the automakers "did not provide sufficiently detailed information to allow us to estimate the percentage of production for which these conditions hold." *Id.* (emphasis added). Given that the automakers were only five months away from compliance when the standard was postponed in April 1981, and that orders allegedly need to be placed with seatbelt mamufacturers nine months in advance of installation, *see* Price Aff. ¶ 10, it is likely that design and testing were completed for many models in 1981. Indeed, the NHTSA Report acknowledges that, "[f]or many cars, particularly those with wheelbases over 100 inches, designs were completed and at least partially tested. In some

cases, some tooling had been ordered." *Lead Time Report* at 20. Thus, absent the missing information from the automakers, NHTSA cannot reliably state that significant compliance by September 1, 1983 is impossible. And, even as to those cars that do not fall into the foregoing categories, the Report indicated that compliance by September 1, 1984 is possible. *Lead Time Report* at 21.

NHTSA's own lead-time experts thus stated that a September 1984 compliance date "would be feasible for most cars that would be sold in the U.S. at that time," and that "only a few special car lines would cease being sold in the U.S. for lack of an automatic restraint." *Lead Time Report* at 24. Even that analysis accepted the automakers' projections, without addressing whether a reordering of priorities could result in more prompt compliance.

The authors of the Lead Time Report are expert engineering analysts. It was not their responsibility to weigh the consequences of further delay in the standard against the lives that will be lost and serious injuries that will be suffered. The agency, however, has a statutory obligation to accord those consequences great weight. Nevertheless, NHTSA takes the position before this Court that the standard should be delayed for an additional year beyond the date on which its own experts believe substantial compliance is feasible, merely to benefit the tardiest or most recalcitrant members of the industry. This solicitude would require the nation to tolerate 6,400 deaths and 120,000 injuries that might otherwise be avoided. NHTSA's studied avoidance of its primary statutory obligation—to meet the need for motor vehicle safety—and its failure to bring to the attention of this Court its own lead-time experts' analysis

more than justifies this Court in refusing to defer to the agency on the lead-time issue.

Respectfully submitted,

/s/ James F. Fitzpatrick
JAMES F. FITZPATRICK
MICHAEL N. SOHN
JOHN M. QUINN
MERRICK B. GARLAND
BORIS FELDMAN

ARNOLD & PORTER
1200 New Hampshire Avenue, N.W.
Washington, D.C. 20036
(202) 872-6700

Counsel for Petitioners
in No. 81-2220

Of Counsel:

DONALD P. MCHUGH, ESQ.
Vice President and General Counsel
State Farm Mutual Automobile
Insurance Company

DATED: October 20, 1982

APPENDICES TO STATE FARM SUPPLEMENTAL MEMORANDUM

Appendix A: Final Report: Analysis of Manufacturers Comments on the Lead Time Required to Install Automatic Restraints in Cars (FMVSS208)

Appendix B: Memorandum from Chairman Wirth to Subcommittee on Telecommunications, Consumer Protection, and Finance

Appendix C: Letter from Chairman Wirth to Administrator Peck

Appendix D: Letter from Administrator Peck to Chairman Wirth (with attachment)

DRAFT
Final Report

ANALYSIS OF MANUFACTURERS COMMENTS ON THE LEAD TIME REQUIRED TO INSTALL AUTOMATIC RESTRAINTS IN CARS (FMVSS 208)

Charles Westphal, Jr.—Sr. Cost & Lead Time Specialist
Richard C. Carter—Program Analyst

Prepared By

National Highway Traffic Safety Administration
Rulemaking
Engineering Systems Staff
Cost and Lead Time Staff

Dr. Carl E. Nash
Director, Engineering Systems Staff
September 1982

TABLE OF CONTENTS

Page

SUMMARY FINDINGS

SUMMARY OF COMMENTS FROM INDIVIDUAL AUTOMOBILE MANUFACTURERS 4

American Seat Belt Council 4

Chrysler Corporation 5

Ford Motor Company 7

General Motors Corporation 8

Mitsubishi Motors Corporation 9

Renault 9

Isuzu Motors Limited 10

BMW of North America 11

Nissan Motor Co., LTD. 12

Rolls-Royce Motors 12

Jaguar Cars Limited 12

Saab-Scandia 12

Mazda (North America), Inc. 13

Volkswagen of America, Inc. 14

Volvo of America Corporation 15

Toyota Motor Corporation 16

Honda Motor Company, LTD. 18

Subaru of America, Incorporated 19

GENERAL DISCUSSION 20

DISCUSSION OF PARTICULAR IMPLEMENTATION SCHEDULES 23

LEAD TIME FOR IMPLEMENTATION OF THE AUTOMATIC RESTRAINT REQUIREMENTS OF FMVSSS 208

The following report is a summary and analysis of comments on the lead time required to install automatic restraints in new passenger cars. These comments were received from seventeen motor vehicle manufacturers and the American Seat Belt Council in response to letters from the Chief Counsel of the National Highway Traffic Safety Administration (Attachment 1).

The Engineering Systems Staff (ESS) has reviewed and analyzed the comments of the American Seat Belt Council and the seventeen automobile manufacturers that have submitted responses. Assuming a total annual sales volume of 8,046,000 units, these seventeen manufacturers produce approximately 7,799,510 cars annually or 96.9 percent of total sales. To date, nine manufacturers have not submitted comments. These manufacturers produce 246,490 cars annually or 3.1 percent of total annual sales.

We have reviewed the seventeen automobile manufacturers responses regarding their estimated lead time requirements for installing automatic restraint systems on their cars. Table I is a summary of the leadtime requirements estimated by the manufacturers that submitted responses. For the 7,799,510 cars that these manufacturers produce annually they stated that:

1. By September 1, 1983, only 148,851 or 1.9 percent of total production could comply. These are all Volkswagens and Toyotas that presently have automatic belts as an option.
2. By September 1, 1984, 6,649,214 or 85.3 percent of total production could comply.
3. By September 1, 1985, 7,639,677 or 98.0 percent of total production could comply.

4. By September 1, 1986, 7,799,510 or virtually 100 percent of total production could comply.

   Only two manufacturers (Saab and Isuzu) would need an effective date beyond September 1, 1986, Saab for cars it would equip with air bags and Isuzu claims they need 3½ years. Honda said if phase-in within their own model lines is permitted, then (24) months lead time is adequate. Therefore, we have recorded Honda as being able to comply by September 1, 1984.

TABLE I
SUMMARY OF LEAD TIME
EFFECTIVE DATE REQUIREMENTS
(17 MANUFACTURERS)

	9/1983	9/1984	9/1985	9/1986
Percent of Respondents Sales in Compliance	1.9	83.4	12.7	2.0
Cumulative Percent	1.9	85.3	98.0	100
Memo: Percent of sales with no Response from Manufacturer	3.1	3.1	3.1	3.1

	9/1983	9/1984	9/1985	9/1986
Total Sales of Respondents in Compliance	148,851	6,500,363	990,463	160,115
Cumulative Total	148,851	6,649,214	7,639,677	7,799,510
Memo: Did not Respond	246,490	246,490	246,490	246,490

TABLE II

DETAIL SCHEDULE OF LEAD TIME EFFECTIVE DATE REQUIREMENTS[3]

Auto Company	Estimated 1982 Sales	% of Total	1983	1984*	1985*	1986	1987
General Motors	3,508,521	43.61		43.61			
Ford Motor Company	1,379,460	17.14		17.14[1]	17.14[2]		
Chrysler Corporation	685,742	8.52		1.70	6.86		
American Motors	134,201	1.67					
VW of America	92,631	1.15	1.15				
Toyota	544,586	6.77	.45	6.32			
Nissan/Datsun	471,392	5.86		4.69		1.17	
Honda	375,609	4.67		4.67			
Mazda	160,872	1.99			1.99		
Subaru	147,099	1.83			1.83		
Chrysler (Mitsubishi Imports)	107,895	1.34		1.07	.27		
Volvo	82,892	1.03		1.03			
Volkswagen	66,446	.83	.25		.47	.11	
Mercedes-Benz	59,843	.74					

Auto Company	Estimated 1982 Sales	% of Total	1983	1984	1985*	1986	1987
Audi	45,341	.56			.25	.31	
Renault	39,461	.49			.49		
Saab	18,206	.23				.23	
Fiat	17,876	.22					
Peugeot	14,315	.18					
Isuzu	13,763	.17				.17	
Porsche	13,433	.17					
JRT, Inc.	9,125	.11		.11			
Delorean	2,909	.04					
Alfa Romeo	2,015	.03					
Rolls-Royce	2,000	.03					
Others	50,394	.61					
			1.85	63.65 80.79[1]	12.31 29.45[2]	1.99	
	8,046,000						

(1) With no changes in standard.
(2) If standard is changed to require non-detachable belts.
(3) Assuming no unforeseeable problems, and no change in standard.
* Not additive to protect CONFIDENTIAL SUBMISSIONS.

Summaries Of Comments From Individual Automobile Manufacturers

The following are summaries of the comments of the individual manufacturers along with analyses of these comments by the Engineering Systems Staff.

American Seat Belt Council

From the time automobile manufacturers give suppliers a firm design for automatic seat belt systems, it takes approximately nine (9) months to begin supplying belt systems.

In order to meet the September 1, 1983 effective date *for all cars* to be equipped with automatic belt systems, suppliers need the final designs from the automobile manufacturers by October 1, 1982.

To date (September 3, 1982), belt suppliers have not been given any final designs, and believe it would be difficult to meet the September 1, 1983 deadline.

Chrysler Corporation (August 27, 1982)

Chrysler cannot meet a September 1, 1983, effective date. If that effective date is retained, it will be forced to discontinue passenger car production up to two years.

The earliest Chrysler will be able to provide any detachable automatic seat belts is September 1, 1984, and then only on its E-body vehicles that have a wheelbase over 100 inches, and possibly a portion of one other car line. The earliest Chrysler will be able to incorporate detachable automatic

seat belts on its remaining lines of vehicles is September 1, 1985.

Chrysler would be unable to survive the production disruption caused by retention of the September 1, 1983, effective date. It also would be unable to survive the production disruption caused by a September 1, 1984, effective date.

Requiring compliance on vehicles with a wheelbase over 100 inches by September 1, 1983, would force Chrysler to delay the scheduled introduction of a new line of vehicles for one model year.

The lead times discussed above are greater than Chrysler detailed in its January 22, 1982, affidavit filed with the United States Circuit of Appeals for the District of Columbia circuit. Additional knowledge gained since that affidavit was prepared, as well as other developments since then, lead the company to conclude that those lead time projections are no longer valid.

Examples of items of additional knowledge gained and developments since the affidavit was prepared that require longer lead time are:

— Chrysler now recognizes that it will take considerably longer to procure prototype instrument panels constructed with representative materials for testing purposes.

— When FMVSS 208 was rescinded Chrysler could use ear-

ly production tooling for E-body development work. Now that the E-body is in production, additional tooling will be required to provide new prototype parts for testing.

Chrysler now recognizes that separate manual belt production tooling will be required for export and Canadian markets.

Chrysler now believes that substantially more developmental testing is required to give adequate assurance of system compliance. The earlier estimate was based on the results of successful frontal impacts. More recent testing of imported cars indicates that additional work will be required for compliance in angular impact situations.

Product improvement programs instituted since January, such as the redesign of steering columns on passenger cars for 1986 model year to reduce vehicle weight, and the fact Chrysler is introducing three new car lines (one in 1985 model year and two in 1986 model year) will require a significant increase in development testing.

Ford Motor Company
(September 16, 1982)

Ford cannot meet the Court ordered effective date of September 1, 1983. If the September 1, 1983, effective date is retained, it is possible that Ford might be required to suspend passenger car production or to give up critically

important new passenger car product programs.

If Ford were free of all other constraints and the standard were not changed, such as to provide detachability of automatic belt systems or to provide air bags, with an accelerated effort, Ford could comply by September 1, 1984. However, an effective date of September 1, 1985 compliance would allow more orderly and efficient implementation.

Ford views the September 1, 1984, effective date as not practicable because of the severe cost penalties caused by an accelerated program and the manpower resources that would have to be reassigned from other priority product programs, some of which would have to be dropped or delayed.

Ford believes that a reasonably orderly and relatively efficient program to introduce passive belts on substantially all of their North American passenger car lines could be completed in time for a Job No. 1 date four to six weeks before September 1, 1985.

General Motors Corporation

General Motors is unable to meet the passive restraint rule by September 1, 1983. The effects of the disruption in production on General Motors, its suppliers, and employees will be catastrophic.

Assuming the performance requirements of FMVSS 208 are

identical to those in the Standard prior to rescission, General Motors requires a minimum lead time period of twenty-one (21) months. To avoid a complete, second shut down (in addition to the normal model change-over) to launch the automatic belts prior to the normal schedule model change over down time, a September 1, 1984 effective date is desired.

General Motors emphasizes that the changes required to incorporate automatic belt systems are substantial and could not be reasonably accomplished during production. Therefore to avoid a complete, second shut down for two to three weeks at a time other than the normal model change-over, a September 1, effective date, is necessary, whatever the year of implementation.

If other designs such as air bags and/or non detachable automatic seat belts, were to be required, a complete redesign of General Motors' restraint systems would be required. Such a redesign could invalidate the projected 21 months leadtime, and would result in the loss of any portion of our investment of which General Motors would be unable to apply to any redesigned passive restraint system. They currently estimate that this investment will be $375 million. For example, the adoption of an air bag's only requirement could result in the loss of virtually all of the $375 million.

Mitsubishi Motors Corporation
(September 3, 1982)

Mitsubishi needs a 24-month leadtime in order to equip the kinds of vehicles that it is now producing and it will be producing through the 1983 model year, with automatic seatbelt systems that would meet the requirements specified in FMVSS 208.

Mitsubishi believes that a 36-month leadtime is necessary for them to equip vehicles that it will produce after September 1983.

The above 12-month difference in lead times arises from the fact that, in December 1981, Mitsubishi had undertaken only preliminary development work on an automatic seatbelt system for its post-September 1983 production vehicles.

Renault, U.S.A.
(August 24, 1982)

Renault needs thirty (30) months of lead time for automatic restraints from the time when this litigation has been clearly and definitively resolved by the Courts.

Any automatic restraint introduction should coincide with the start of a September 1st, new model year.

According to Renault, when the requirement was rescinded on October 23, 1981, a two-year lead time remained before passive restraints would have had to be installed in its vehicles. To revive and complete the development of these systems and to tool up for production, it would be necessary

to give them two years' lead time, in addition to a six-month start up period.

Isuzu Motors, Limited
(August 31, 1982)

Isuzu needs 3½ years after the requirement has been re-established.

Unlike active belts, passive belts require substantial changes to the vehicle interior layout including modification to the vehicle body structure.

A great number of crash tests are necessary to make sure that the vehicle meets all performance requirements.

Isuzu, relatively small as an automobile manufacturer, does not have sufficient manpower, test facilities, and other resources to develop more quickly the passive restraint system as an integral part of the vehicle.

Isuzu needs a minimum of 3-year lead time to develop such a system for one model having only one body style. However, more than one model is involved in its program and its ability to proceed with development and production preparation simultaneously for two or more vehicle models is very limited. Therefore, 3½ year lead time is needed.

THIS PAGE EXCLUDES INFORMATION SUBMITTED AS CONFIDENTIAL

BMW of North America (August 24, 1982) and (September 17, 1982)	(Data submitted with claim that it is entitled to CONFIDENTIAL TREATMENT).

THIS PAGE EXCLUDES INFORMATION SUBMITTED AS CONFIDENTIAL

Nissan Motor Co., LTD.	Nissan cannot meet the September 1, 1983, effective date. For current models where passive restraint systems development was in progress prior to the rescission, Nissan projects that twenty-three (23) months of lead time is required. For the new models that have been developed since the rescission, where no provision was made for automatic restraints, Nissan projects that a 30-month lead time would be required. For these new models, it will be necessary to change the interior design: both the basic design concept and the details. Nissan did not indicate the number of current and new models involved in their total production.
Rolls-Royce Motors (September 8, 1982)	Rolls-Royce Motors estimates it would require an effective date 31 months after the final rule is issued. Leadtimes have been extended from previous estimates because

	resources have been engaged on other work.
Jaguar Cars, LTD. (September 6, 1982)	Jaguar requests that NHTSA persuade the U.S. Court of Appeals that the effective date be deferred until January 1984. According to Jaguar, if the effective date remains at September 1, 1983, then either sales to the United States market will have to be discontinued, or the company will be required to introduce into the market systems that have not been tested sufficiently.
Saab-Scandia (September 10, 1982)	Saab proposes that passive belts not be required before September 1, 1986 and that air bags not be required before September 1, 1988.
Mazda (North America) Inc.	Minimum lead time needed is thirty-one (31) months. To reduce cost burdens, introduction of automatic belt systems must coincide with new model introduction. Mazda suspended development on automatic belt systems when the mandatory requirement of the system was rescinded. Subsequent to rescission of the requirement, design features on each vehicle model were changed without making provision for the installation of the automatic belt system.

The long lead time required is attributed to the following:

1. Designs intended for implementation before the rescission of the standard must be reviewed.

2. Modifications must be incorporated to reflect new technology.

3. Engineering drawings must again be released.

4. Arrangements and contracts with suppliers must be negotiated.

Volkswagen of America, Inc. (September 1, 1982)

Automatic belt systems are currently offered as optional equipment on the Rabbit and Jetta models; therefore, those models could comply by September 1, 1983.

On the remaining models Volkswagen discontinued automatic belt system development after the rescission. For Volkswagen's remaining models the following effective dates could be met:

- July 1, 1985: VW Quantum, Audi 4000, Audi Coupe, Audi Quattro, and VW Scirocco.

- January 1986: Audi 5000, VW Rabbit Convertible. Note that the situation regarding these models is a special one, requiring unique automatic restraint systems because of their different door configura-

tion. Accordingly, VW has determined that compliance for these models cannot be completed until January 1986.

Volvo of America Corporation

Volvo requests a lead time of at least twenty four (24) months (September 1, 1984) in order for the company to be able to comply with passive restraints requirements for all its vehicles. Also, they would prefer an additional 12 months (that is, an effective date of September 1, 1985) in order to have a margin for unforeseeable events.

Volvo cited several reasons why it cannot comply with the passive restraint requirements by September 1, 1983. The primary reasons are:

1. Prior to FMVSS being rescinded the Volvo automatic restraints plans were for an air bag system for the top-of-the-line models and automatic belt systems for other models.

2. If passive restraint systems are again required, Volvo would prefer to replace its original automatic belt system with later generation systems in order to improve comfort and convenience to increase usage rates. The new systems may also incorporate a spool release system instead of the previous buckle-type emergency release. This requires additional component testing and crash testing to

verify the occupant protection properties of the new systems.

3. When FMVSS 208 was rescinded on October 29, 1981, Volvo immediately stopped all work on the development of passive restraint systems.

4. Since the FMVSS was rescinded Volvo has developed some new models for which no automatic restraints were developed. For those models, development must start from scratch. However, it may be possible to use some components from other models.

Toyota Motor Corporation (September 15, 1982)

Except for the Cressida model which is already equipped with automatic belts Toyota cannot meet the September 1, 1983, Court ordered effective date.

For the current production models other than the Cressida with wheel bases of more than 100 inches and all cars with wheel bases under 100 inches it is possible for Toyota to comply with the automatic belts by September 1, 1984, though it would entail serious difficulties.

For those car lines with wheelbases of 100 inches or less, the development and tooling program of automatic belts was at a very preliminary stage (by more than one year), compared with the program of the current production models with wheelbases of more than 100 inches. Moreover, since

they have many car lines with wheelbase ranges of 100 inches or less, it is virtually impossible to carry out these extensive changes for those various car lines within the same time frame. Thus, none of these vehicles with wheelbases of 100 inches or less could be equipped with automatic belts earlier than 1985 models, and not even then for some car lines. Approximately 90 percent of Toyota's vehicles are in the 100 inch or less wheelbase class.

For the current production models with wheelbases of more than 100 inches, it would be impossible to adopt the automatic belts starting with 1985 models, though it would entail serious difficulties, except for the Cressida which is already so equipped. At the time of NHTSA's rescission order, development and tooling processes for models to be introduced to the United States or completely redesigned after September 1, 1982, were halted at a more preliminary stage than the current production models. After the rescission order, the body structure of these new vehicles was changed to incorporate manual belt systems, only, and tooling for production has been committed. To install automatic belts, it is necessary to modify the already completed development and tooling program for the manual belt system, for which there is now insufficient time.

As explained above, none of Toyota's 1984 models can be equipped with automatic belts, with the exception of the Cressida which is already being offered with automatic belts.

Since they cannot comply with the automatic restraint requirements, except with the Cressida, their total sales would be limited significantly. This would have a devastating effect on their United States market, which would cause extreme financial repercussions not only for Toyota, but also for our United States dealers and for their employees.

Honda Motor Company, LTD. (September 15, 1982)

It would be impossible for Honda to have 1984 year models comply with the previous requirements by September 1, 1983. That is, considering the period required for developments and retooling.

They would be able to produce certain models that conform to the requirements, however, starting with the 1985 model year.

Honda anticipates their lead time requirements are:

(1) 36 months, or starting with 1986 model year, if one effective date is set for all passenger cars.

(2) 24 months, or starting with 1985 model year, if NHTSA allows manufacturers to

phase-in automatic restraints within their model line-up.

Note: One effective date for all passenger cars would not prohibit Honda from phasing-in automatic restraints within their own models. Therefore, (24) months, or a September 1, 1984, effective date appears adequate for Honda.

Subaru of America, Inc. (September 21, 1982)

Subaru cannot meet the September 1, 1983, effective date. The effects of the disruption in production on SOA and FHI, their suppliers, distributors, dealers and employees would be catastrophic.

As an absolute minimum, Subaru requires 36 months lead time for current and planned models. That is, assuming the performance requirements are identical to those in the standard prior to rescission.

Lead time explanation:

(1) *Current models*

At the time of the October 23, 1981 rescission, 22 months lead time remained for implementing the detachable automatic seat belts, i.e., September 1, 1983. At that time they stopped all passive restraint development. In order to regenerate these activities, reassembling of engineering technology and reorganization of develop-

ment teams are necessary, requiring six (6) months for a total lead time for current models of 28 months.

(2) *For new models*

(36) months lead time is needed. Explanation of why were provided in the September 21, 1982 letter on a CONFIDENTIAL basis.

Even with the curtailing and cancellation of other important engineering projects, they can not resume developmental activities for detachable automatic seat belts until January 1983. During this period all of their available engineering manpower is occupied with projects which are essential to their very survival in the marketplace. Therefore, it is impossible for them to comply with the re-established standard for 36 months.

GENERAL DISCUSSION

Before the automatic restraint requirements of FMVSS 208 were rescinded, the implementation schedule for the standard was as follows:

- For cars with wheelbases over 100 inches, September 1, 1982, and
- For cars with wheelbases under 100 inches, September 1, 1983.

For many cars, particularly those with wheelbases over 100 inches, designs were completed and at least partially tested. In some cases, some tooling had been ordered. However, for the year preceeding the rescission, many manufacturers slowed

their programs in anticipation that the government would rescind or modify the automatic restraint requirements.

Despite the fact that there had been considerable development work on automatic belts for new cars, many companies commented that they would like to redesign their automatic belt systems if they were required to install them in new cars in the future.

The leadtime required by seat belt manufacturers, from the time they receive final designs from the automobile companies until they begin production is normally six to nine months. An additional two months is required before these systems can be installed on automobile production lines. However, if new belt systems must be produced for all cars being sold in the U.S., in the same model year, manpower and other scheduling problems will make additional leadtime necessary, or will force costs up substantially.

Compressing leadtime also affects the design and production quality of the belts that will be produced. An example of this effect was the the implementation of the present safety belt requirements plus the interlock requirement in the 1974 model year. Less than two years leadtime was allowed to incorporate automatic locking retractors in lap belts and either webbing sensitive to inertial locking retractors in shoulder belts, and to include starter interlock devices to ensure usage of belts. As a consequence, there were many design deficiencies in these new belts, as well as quality problems in their production that affected their performance and consumer acceptability. These problems exacerbated the negative reaction of some parts of the public to the starter interlock system.

The Engineering Systems Staff makes the following estimates of the overall leadtime required for individual car lines to meet an automatic restraint requirement.

- For cars that now have automatic belts as standard or optional equipment, such as the VW Rabbit and the Toyota Cressida, the effective date of the standard set

by the Court, September 1, 1983, is completely realistic.

- For cars that had completed designs for automatic belts that have been tested and determined to be satisfactory by the manufacturers for those cars, the present effective date could also be met. This would probably include only a minority of car lines being sold in the U.S. at present. However, the automobile manufacturers did not provide sufficiently detailed information to allow us to estimate the percentage of production for which these conditions hold.
- For cars where preliminary design work for automatic restraints has been completed, and where some cosideration had been given to the need for installing automatic belts in the original vehicle design, two years of leadtime should be sufficient in most cases. For these cars, an effective date of September 1, 1984, should be feasible.
- For cars on which there has been no design work, and for which no provision has been made for automatic restraints, a minimum of two years leadtime is necessary, and three years would be highly desirable. Thus, for these cars, an effective date of September 1, 1985, would be desirable. If a substantial number of car lines fall into this category (and the comments of the auto makers indicates that they do), scheduling and manpower constraints would make a two year leadtime very difficult and expensive, and would probably result in design and production quality problems with the new belts.

Two additional technical factors should be considered:

- For systems that use a knee bolster, such as the VW and Toyota systems, the redesign of the instrument panel would require additional leadtime. Typically, new instrument panels have a leadtime of two to three years, and such modifications would take about two years of lead time depending on the extent of the changes required.
- For companies that choose to use air bags to comply with the standard, a minimum of three years of leadtime would be very desirable, if not necessary. There

are no suppliers presently able to produce large quantities of inflators and other sophisticated components for air bag systems. Furthermore, these systems require substantial developmental testing which is very time consuming. At present, it appears that Ford, Mercedes Benz, and BMW have developed air bag systems for at least some of their car lines that could be put into production in less than three years, but none of these companies commented on this possibility.

The NHTSA believes that the availability of a substantial number of new cars with reasonably priced air bags would enhance public acceptance of the automatic restraint standard. A leadtime of significantly more than three years, as well as a major industry commitment to producing cars with air bags would be necessary for this to occur.

DISCUSSION OF PARTICULAR IMPLEMENTATION SCHEDULES

A number of automobile manufacturers stated that regardless of the implementation date, an effective date of September 1 of the year in which the standard takes effect is highly desirable. Such an effective date would allow the change to automatic restraints to be made during the normal model changeover period.

The automatic restraint standard promulgated in 1977 had a phased introduction with four to six years of leadtime. The basis for determining the effective date of the standard was the size of the passenger car as measured by its wheelbase. Large cars were given four years of leadtime. Mid-size cars were provided five years, and small cars had six years.

At present, unfortunately, there is no simple scheme by which cars could be classified by type (as is permitted in the National Traffic and Motor Vehicle Safety Act) that would accomodate the manufacturers' lead time needs. Thus, for leadtimes of less than two years, the Engineering Systems Staff does not believe that a phased introduction schedule is feasible.

The following is a discussion of effective dates for all cars sold in the U.S.

September 1, 1983

This date is highly unrealistic for all cars to be sold in the U.S. as was recognized as a possibility by the Court. While it would be possible for many auto companies to meet this effective date for some of their car lines under emergency conditions, it would be very expensive and would result in poor quality belt systems that would be likely to be rejected by the public.

Because of the substantially depressed new car market, and the poor financial condition of many auto makers, it is possible that at least some companies could not survive the impact of substantial extraordinary costs for belt development and tooling, and of consumer rejection of the belts so produced.

There is also no single type of passenger car that could be defined for which this effective date is feasible for all cars of that type.

September 1, 1984

This date would be feasible for most cars that would be sold in the U.S. at that time, but would still require significant compression of leadtime schedules for some car lines. Nevertheless, if this were established as the effective date, only a few special car lines would cease being sold in the U.S. for lack of an automatic restraint. On the other hand, the compression of schedules would result in significant cost increases for the belt systems in some car lines. It would also mean that for some car lines, the belts would not be those considered optimal by the manufacturers for both safety performance and consumer acceptance.

September 1, 1985

The advantages of setting the effective date with nearly three years of leadtime are basically three: 1) it would eliminate virtually all compression of schedules for the development and tooling for automatic restraint production, 2) it would result in higher quality restraint systems (including the distinct possibility that some manufacturers would use air bags to comply with the standard), and 3) it would save some costs for install-

ing automatic restraints in car lines that will be phased out over the next three years.

By eliminating the compression of lead times, the cost of implementing the standard would be minimized. Manufacturers would also not be forced the divert scarce skilled manpower from other projects to accelerated restraint development programs. This schedule would also reduce the scheduling problems with sled and crash test facilities needed for developmental and compliance certification testing.

Many manufacturers stated that they would change their automatic belt designs from those they had intended to use to meet the original deadlines set in 1977, to improve their safety, comfort, convenience, and public acceptability. However, with less than three years of lead time, many would be forced to use existing designs rather than newer designs that would be superior.

Finally, there are several car lines that are likely to be phased out of production over the next three years, such as the full sized rear-wheel drive cars of the major manufacturers. If the effective date of the standard is set less than three years in the future, the manufacturers would either have to end production prematurely, or would have to equip these cars with automatic restraints for a very small production run, making them very costly.

U.S. House of Representatives

SUBCOMMITTEE ON TELECOMMUNICATIONS,
CONSUMER PROTECTION, AND FINANCE
OF THE
COMMITTEE ON ENERGY AND COMMERCE
Washington, D.C. 20515

October 19, 1982

TO: Members, Subcommittee on Telecommunications, Consumer Protection and Finance

FR: Timothy E. Wirth, Chairman

RE: Recent developments concerning Federal Motor Vehicle Safety Standard 208, the automatic crash protection standard.

As you recall, NHTSA rescinded standard 208 in October, 1981 which would have required automakers to equip cars with automatic crash protection (air bags, or automatic seat belts). Soon afterward, several insurance companies joined by the United Auto Workers and public health and consumer groups filed a lawsuit against the agency in the U.S. Court of Appeals for the D.C. Circuit. In June 1982, this court remanded the case to the agency, stating that the rescission of the automatic crash protection standard was "arbitrary and capricious" and "unlawful." Subsequently, the court reinstated the standard to be effective on September 1, 1983 (the beginning of the 1984 model year). The court also asked NHTSA to submit additional comments concerning the feasibility of automakers complying with the standard by that date.

On October 1, 1982, NHTSA asserted to the Court that there is "considerable doubt" that automakers could install automatic crash protection even by model year 1986. NHTSA's assertion contradicts an analysis prepared by the agency's foremost experts in cost and lead time estimates, which concludes that 81% compliance with the standard could be achieved by model year 1985, with full compliance in model year 1986.

For your interest and information, I am including my correspondence with NHTSA Administrator Peck on the lead-time question, his responses, and a copy of the memo done by the cost and lead-time experts. I believe these documents warrant your attention as they will undoubtedly be part of the Subcommittee's future oversight efforts.

U.S. House of Representatives

SUBCOMMITTEE ON TELECOMMUNICATIONS,
CONSUMER PROTECTION, AND FINANCE
OF THE
COMMITTEE ON ENERGY AND COMMERCE
Washington, D.C. 20515

October 12, 1982

Mr. Raymond Peck
NHTSA
400 Seventh Street, S.W.
Room 5220
Washington, D.C. 20037

Dear Ray:

I have had several extremely disturbing reports in recent days concerning NHTSA's handling of its review of the estimates given by various automobile manufacturers of the lead-time necessary before they can install automatic crash protection in compliance with FMVSS 208. I am aware that the agency, in response to an order of the United States Court of Appeals on August 4, 1982, sought information concerning the lead-time requirements from the manufacturers and that the agency later set forth its own views on the subject in a submission to the Court on October 1, 1982.

I have recently been told that employees of the Office of Rulemaking (or other personnel of the agency) prepared a summary and an analysis of the comments submitted to the agency by the automakers on the lead-time question. I am also informed that one (or more) such document (s) was removed from circulation within the agency, retrieved from employees who had received it by employees of the Office of General Counsel or of your office and, perhaps, destroyed.

I am sure you can understand my dismay at these reports. I will very much appreciate hearing from you as to the circumstances surrounding the preparation, collection or destruction

of any NHTSA document prepared in connection with the manufacturers' submissions on the lead-time question. If any such document is in existence at this time, I will appreciate receiving a copy.

Inasmuch as this matter is presently in litigation and in view of the serious nature of the reports I have had, I would like to hear from you no later than close of business on Thursday, October 14, 1982.

Many thanks for your cooperation.

With best wishes,

Sincerely yours,

/s/ Timothy E. Wirth
TIMOTHY E. WIRTH
Chairman

U.S. Department
of Transportation

National Highway
Traffic Safety
Administration

October 15, 1982

The Honorable Timothy E. Wirth
Chairman, Subcommittee on Telecommunications,
Consumer Protection, and Finance of the
Committee on Energy and Commerce
Washington, D.C. 20515

Dear Mr. Chairman:

I share fully your concern over the false reports you have apparently received over the handling by the National Highway Traffic Safety Administration (NHTSA) of its response to the question addressed to us by the U.S. Court of Appeals for the District of Columbia Circuit as to whether the compliance date of September 1, 1983, set by the Court is "achievable" or "whether a longer period is necessary."

Based on my personal knowledge of the events surrounding NHTSA's court submission, there is no substance to the allegation you have apparently received that material prepared by NHTSA in connection with this litigation was improperly "removed from circulation" within the agency, destroyed or otherwise not taken into account in the preparation of our submission to the Court.

All data prepared or collected by the agency was given to and used by our Counsel in preparing our response. The Rulemaking Office prepared and assisted in the preparation of the affidavit of Mrs. Courtney Price, the Associate Administrator for Rulemaking dated September 30 and submitted to the Court on October 1, 1982. This affidavit summarizes and sets forth the agency's conclusions derived both from agency knowledge and industry submissions, indicates the basis for such conclusions, and submits to the Court copies of all industry submissions in response to our request for further information. I enclose a copy of this submission for your information.

Internally, the agency and the various offices involved prepared successive drafts of a number of documents which, in your words, summarized and analyzed manufacturers' lead-time submissions. As more data was received, each such draft was updated and revised, but Counsel's office was kept informed on a current basis of all such revisions.

I believe I know the origin of the report you received, and am sure you will share our concern and endorse our action. Briefly, sometime after 5:00 p.m. on October 1, and after our response to the Court had been delivered, a document was hand carried to the Office of Chief Counsel from the Rulemaking Office. As delivered, it did not resemble in format anything previously submitted by that Office to Counsel. Staff having left for the day, the Chief Counsel was unable to confirm what the status of the document was and, more importantly, whether it represented new or additional material that should be taken into account in our response to the Court. Although the internal agency deadline for analytic data of this nature had long since

passed, it was clear that if, in fact, this represented new information a supplementary or revised filing with the Court could have been necessary.

To determine whether this was the case, Chief Counsel Frank Berndt called Dr. Carl Nash, Deputy Associate Administrator for Rulemaking and Director of the Engineering Systems Staff. Mr. Berndt asked for the background of the paper and the information or analysis upon which it was based. Dr. Nash responded by bringing Mr. Berndt his file on the subject, including earlier drafts. In my view this was fully appropriate and indeed necessary, for the document in no way resembled any customary format of NHTSA analysis. We do not customarily prepare any such type of document. It bore no indication of source of origin within the relevant NHTSA staffs. It was "delivered" or rather appeared without any letter or memorandum of transmittal, no review or clearance sheets, no dates or routes of transmission, and no indication that it had been seen, reviewed or even given to any of the offices involved in our response effort.

Most disconcerting of all was the fact that the cover sheet bore the phrase "September 1982," an indication on its face that the paper might, in fact, have been in existence before the date of delivery but never brought to the attention of the draftsmen of our response.

Mr. Berndt brought the paper to me, and I discussed it at length with Mr. Berndt, Dr. Nash and the Deputy Administrator. On examination of the document, Dr. Nash was able to assure us that it was not, in fact, new, was not in any way inconsistent with the agency's submission, and had been appropriately considered throughout the preparation of our response. He reminded us that he had participated in drafting and had personally reviewed in detail Mrs. Price's affidavit, and had fully concurred in all but one minor point, on which he readily agreed anyone could differ. (Specifically, he had suggested that it might literally be inaccurate to describe compliance by September 1, 1983, as "impossible," since on a war

time, crash basis, with substantial assistance from the Government or otherwise outside the industry and by eliminating many future lines of cars, some form of partial compliance could possibly be achieved.)

Dr. Nash noted that no consultation with other offices had occurred in drafting, and that no supplementary data had been sought or obtained by his staff from the industry or any other sources. He was unable to explain why the document had come to be prepared in that precise format, and had not known of or concurred in its transmittal to Counsel.

My initial reaction had been to ask Dr. Nash and his staff for an affidavit suitable for submission to the Court and setting forth how, on an issue of this importance, a "Report" of his office could be tendered so late as not to be able to be taken into account in preparing our submission. In light of his assurance that that document was not new or inconsistent in any way with our submission, and had previously been considered by Counsel, I withdrew that request.

Since, however, the document had, in fact, been transmitted by an office of NHTSA to another office, and since in our discussion Dr. Nash and I had identified but not been able to resolve some apparent inconsistencies appearing on the face of the document, I directed that normal agency policy be followed in all respects and other interested offices review and comment on this office's draft. This review has identified several major problems with the analysis. Some involve the previously identified inconsistencies, others inaccurate characterizations of the submissions themselves. Each of these problems is apparent on the face of the document. In addition, however, it would appear that the authors were either unaware of or failed to take into account collateral issues and resource needs that would render at least some of the judgments derived insupportable in fact. In view of the nature of your request and interest, I enclose a copy of one such review already received.

I do not believe any fair construction of these events could lead to the apprehensions apparently voiced by your reporters. As

you know, I am particularly sensitive to any such implications, because of the unfortunate confusion that arose last year over the status of a similar unreviewed, untransmitted draft document. I assure you that our review of this issue has been thorough and comprehensive, and directed to the need to be as fully and completely responsive to the issues raised in the proceeding and by the Court.

Please do not hesitate to contact me or my staff if you have any further questions about this issue.

Sincerely,

/s/ Ray Peck
Administrator

U.S. Department
of Transportation

National Highway
Traffic Safety
Administration

Date: October 6, 1982

Subject: *INFORMATION:* Review of "Lead Time for Implementation of the Automatic Restraint Requirements of FMVSS 208"

From: Barry Felrice
Associate Administrator for Plans and Programs

To: Raymond A. Peck, Jr.
National Highway Traffic Safety Administrator

Reply to
Attn. of: Felrice: 61560

I have reviewed the "Report" on lead time for implementation of the automatic occupant protection requirements of FMVSS 208 and find it seriously deficient in several respects. First, it

erroneously discusses compliance dates in terms of how many vehicles could comply while also implying that a phased-in schedule (i.e., not requiring simultaneous implementation for all cars) is not possible. This one dimensional discussion could lead a reader to believe incorrectly that compliance by 85 percent of all cars by 9/1/84 somehow can be effected, or would be lawful when indeed no such result could be acceptable in accordance with the National Traffic and Motor Vehicle Safety Act. Thus, the principle thrust of the entire paper is a straw-man and should be recognized as such.

Second, the discussion of what percent of cars could comply by a certain date fails to recognize the practical effects such dates entail. For instance, the paper claims in one place that 85 percent, and in another 81 percent, of all cars could comply by 9/1/84, but this represents in each case the full production runs of only four companies—GM, Ford, Volvo, and Jaguar. No other company could meet such a date for all its vehicles. Thus, the competitive effects of a 9/1/84 compliance date would be catastrophic. It would be equivalent to the government wiping out competition in the auto industry so as to make the strong stronger. Indeed, it is only the largest companies (GM, Ford, Chrysler, Toyota, Honda) that could hope to meet such a date even with a portion of their production.

Third, the paper glosses over virtually all of the caveats accompanying the manufacturers' statements. It ignores the company concerns over the ability of suppliers to meet their deadlines, it ignores the possibility that testing and development might uncover problems, and it even ignores company claims about compliance dates for currently produced cars and assumes to-be-produced models can so comply. These comments are enlarged upon in the attachment to this memorandum.

Honda

The summary contains a note that a 9/1/84 effective date "appears adequate for Honda." This statement is totally without basis in Honda's submission. Honda stated that it could

produce "certain models" which would conform to 208 by 9/1/84 but could not achieve 100 percent compliance until 9/1/85. Their discussion of phase-in must be interpreted to mean that cars with >100 inch wheel-base could comply by 9/1/84 but cars with <100 inch wheelbase would need 1 more year.

Jaguar

The summary makes no mention that the United States is Jaguar's largest single market, thus of "overwhelming importance to the company."

Rolls Royce

The summary fails to mention that the U.S. market "is vital to the survival of [the] company."

VW

VW's summary takes no notice of VW's concern over its suppliers' ability to meet its deadlines. VW anticipates that its suppliers will be reluctant to commit their resources to passive restraint development. VW is also concerned that any departure from their schedule would compromise the quality of their restraint systems.

Volvo

Volvo also mentioned supplier problems and cited that it already had "indications that some vendors may need additional lead time" thus calling in jeopardy their 9/1/84 estimate. The summary also fails to mention that their estimate assumed one "testing loop" in their development work but their experience shows that at least two "loops" are usually required to meet reliability and performance goals.

Alfa-Romeo

No summary is presented. Alfa-Romeo requires until 9/1/85.

American Motors

No summary is provided. AMC requires until 9/1/85.

BMW

No summary is provided. BMW requires until 9/1/85 working on a "crash" basis. Any earlier date and they would preproduce and stockpile manual belt cars, which would be "extremely expensive" and would injure its dealer network.

FURTHER COMMENTS ON "LEAD TIME FOR IMPLEMENTATION OF THE AUTOMATIC RESTRAINT REQUIREMENTS OF FMVSS 208"

Chrysler

The summary of Chrysler's comments fails to mention several key points. First, Chrysler continually emphasized that the *earliest* date by which it could comply for all models is 9/1/85. This point is glossed over in the summary. Second, Chrysler stated (p 14 of its submission) that even the 9/1/85 date "would have a substantial adverse impact on Chrysler's ability to incorporate improvements in its vehicles that are responsive to other public needs such as fuel economy and to its competitive position." For a corporation such as Chrysler where maintenance of market share is crucial to survival, any significant dimunition of engineering effort in developing new products must be carefully weighed. Third, Chrysler's estimates are dependent on the standard remaining unchanged. Any alteration could lead to additional lead time being required. And, fourth, Chrysler estimated that even a 9/1/84 date would lead to losses of $2-$5 billion in revenue and $0.7-$1.6 billion in profits, amounts which would lead to the eventual collapse of Chrysler.

Ford

The summary of Ford's submission leads one to believe that Ford claimed it could meet a 9/1/84 effective date, but preferred a 9/1/85 date. However, a careful reading of their submission shows that this is not true. Ford stated it "theoretically" needed 2 years (until 9/1/84) lead time *if* it were free of all other constraints and it could concentrate its resources on developing passive belts. Ford also states that the above would

be true *only for its existing small car designs*. It does not apply toward new models being introducted. Ford then goes on to state that "it is not free of significant constraints on its resources" because of its need for new products to attain profitability, thus negating the possibility of a 9/1/84 date. Ford claims that date would cause it "incalculable harm." Ford also claims that abandoning its new car development program is not practicable. Lastly, Ford states that even attempting to meet a 9/1/85 date would involve disruption of product plans and could result in the elimination of a currently planned new vehicle entry. Ford also states that its convertibles and three front seat passenger cars could never meet the standard while retaining acceptable prices.

GM

The summary does not mention GM's concern over tooling capacities and outside engineering availability. GM stated that it *assumed* adequate tooling capabilities would be available. They expressed their concern over the demands on the tooling industry for simultaneous implementation (the same concerns earlier expressed by the American Seat Belt Council). They believe that this assumption, which is built in their 9/1/84 estimate of earliest compliance by assuming no delays outside their control, is "tenuous." Similarly, they require the services of up to 75 outside engineers to complete their programs by 9/1/84. Their availability was assumed, but "is unknown at this time." Any unavailability would "seriously jeopardize" the 9/1/84 effective date.

Fourth, the paper is insensitive to the economic consequences of firms' inabilities to comply by a specified date. As attested to in many manufacturer submissions, setting an earlier compliance date than possible would spell the destruction of those companies. Among the companies which are fearful of an unreasonable effective date are Chrysler, Ford, Alfa-Romeo, BMW, Jaguar, Rolls Royce, and Toyota. Similarly, there is not any discussion in the "paper" of corporate inability to pursue their product development plans while embarking on a crash

program to implement FMVSS 208 for currently designed cars. Such a cessation of activities would be necessary in many cases to even meet the earliest compliance dates claimed by the companies.

Additional comments follow:

The paper (p 20) claims that in 1981 "many manufacturers slowed their programs . . ." in anticipation of the government's rescission of the standard. Having read every item submitted to the docket on this subject and having reviewed company actions and plans during the extended course of these proceedings, I can find no mention or evidence of such a delay by anyone. The statement in the paper represents neither the public record nor the agency's belief in this matter, but rather appears to be the personal bias of the author.

On page 21, it is gratuitously stated that for cars (exclusive of those which already have automatic belts) that had been "certified" as meeting 208, the 9/1/83 date can be met. The paper then contradictorily states that "only a minority of car lines" would meet this criteria and that insufficient information was supplied by the manufacturers to estimate this amount. Again, this is the classic "strawman" argument wherein a fictitious hypothesis is postulated, then disproven. There was not *insufficient* information provided by the manufacturers, but *no* such information provided. The only claim that such cars exist is in the ESS paper.

The paper continues its bias by implying that 2 years lead time (9/1/84) for cars on which no work has been done is sufficient, contrary to manufacturer statements that 30-36 months is required and despite the earlier recognition that the authors had not been provided information from which to estimate the percentage production of when even earlier, design completed lines, could comply.

The paper is further incorrect in stating (p 22) that BMW did not comment on the possibility of airbags being installed within 3 years—they did. Also, it is not NHTSA's position that airbag

cars would of themselves enhance the public's acceptance of this automatic restraint standard. Although an airbag demonstration is actively being sought, it is for purposes of evaluating and supporting improved views on their real world performance and not for purposes of "selling" the standard insofar as belts are concerned.

Attachment

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 81-2220

STATE FARM MUTUAL AUTOMOBILE INSURANCE CO., *et al.*,
Petitioners,

v.

DEPARTMENT OF TRANSPORTATION, *et al.*,
Respondents.

No. 81-2221

NATIONAL ASSOCIATION OF INDEPENDENTS INSURERS, *et al.*,
Petitioners,

v.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION,
Respondent.

NHTSA'S RESPONSE TO STATE FARM'S AND NAII'S SUPPLEMENTAL MEMORANDA

INTRODUCTION AND SUMMARY

On October 20, 1982, State Farm filed with this Court a Supplemental Memorandum in Response to NHTSA's October 1 Submission, attaching, *inter alia*, a draft "Analysis of Manufacturers Comments on the Lead Time Required To Install Automatic Restraints in Cars (FMVSS 208)," prepared by NHTSA's Rulemaking Engineering Systems Staff [hereinafter Draft Rulemaking Report]. State Farm, along with NAII, argue that this draft report was inconsistent with NHTSA's October 1 filing—specifically, that the draft report supports a September 1, 1984 compliance date, and not NHTSA's statement to this Court "that practicable compliance with Modified

Standard 208 could not be achieved before September 1, 1985 at the earliest." (NHTSA's Oct. 1, 1982 Memo at 8).

As this memorandum makes clear, NHTSA's conclusion—that a September 1, 1983 compliance date for Modified Standard 208 is not achievable—is fully supported by the Draft Rulemaking Report. In addition, those parts of the Draft Rulemaking Report which State Farm characterizes as supporting a September 1984 compliance date are, on their face, the result of an erroneous compilation of the manufacturers' estimates, rather than an independent estimate of lead time by the draft's authors. Moreover, the Draft Rulemaking Report is inconsistent with another NHTSA staff report prepared by NHTSA's Plans and Programs Office at the same time. Finally, the Draft Rulemaking Report was in fact considered by NHTSA in preparing its October 1, 1982 submission to this Court, and is not inconsistent with that submission, although NHTSA determined not to file either staff report with this Court.

NHTSA's October 1 submission does not constitute a formal Agency rule for a new effective date. When NHTSA, through rulemaking, establishes a new effective date, the NHTSA Administrator will be free to consider or reject staff conclusions, and his judgment on a reasonable and practicable effective date will be entitled to deference. Judicial review of his conclusion should be based on the reasons he states in his final decision following rulemaking, which may be rejected only if those reasons are arbitrary and capricious.

DISCUSSION

1. On its face the Draft Rulemaking Report confirms that the manufacturers estimate only 1.9% of the total number of automobiles produced for sale in the United States could comply with the existing passive restraint standard by September 1, 1983 (Draft Rulemaking Report at 1)—a "date [which] is highly unrealistic for all cars to be sold in the U.S. * * *." (Draft Rulemaking Report at 23). NHTSA takes State Farm's

reliance on and support for the Draft Rulemaking Report as a concession that NHTSA was correct when it advised this Court that "a September 1, 1983 compliance date is *not* achievable, and that a significantly longer period than the thirteen months provided by this Court would be required for practicable compliance." (NHTSA Oct. 1 Memo at 2).[1]

2. The Draft Rulemaking Report was considered by the Agency in preparing its October 1 submission, and is *not* inconsistent with that submission, which advised this Court "that practicable compliance with Modified Standard 208 could not be achieved before September 1, 1985 at the earliest." (NHTSA's Oct. 1 Memo at 8). Thus, NHTSA's October 1 filing clearly reflects the conclusion of the Draft Rulemaking Report that a small number of vehicles could comply with Standard 208 in 1983, and other model lines (especially those which could be converted to automatic restraints most easily) could comply in 1984. (NHTSA's Oct. 1, 1982 Memo at 2-3, 8, n.*). However, even assuming the accuracy of the Draft Rulemaking Report's compilation that between 80-85 percent of all cars could comply with Modified Standard 208 by September 1, 1984 (see Draft Rulemaking Report at 1, 2, 3), the face of the draft report indicates that a September 1984 compliance date would prevent Chrysler, Mazda, Subaru, Volkswagen, Audi, Renault, Saab and Isuzu from selling all or most of their cars in the United States. (Draft Rulemaking Report at 3). While these manufacturers may produce only approximately 15-20 percent of the cars sold in the United States, NHTSA, in setting a *reasonable* and *practicable* compliance date, must take into account the problems of these manufacturers, and the competitive impact on the industry as a whole of imposing a standard that vastly favors a few major producers.

---

[1] Both State Farm and NAII state that the Court should not resolve the lead time issue until after the Supreme Court disposes of the Petitions for Writs of Certiorari. State Farm Supplemental Memo at 5; NAII Supplemental Memo at 2.

In addition, the Draft Rulemaking Report notes that a September 1984 compliance date would result "in significant cost increases for the belt systems in some car lines * * *," and the installation of belts which "would not be those considered optimal by the manufacturers for both safety performance and consumer acceptance." (Draft Rulemaking Report at 24). The draft report notes that a September 1, 1985 compliance date would "result in higher quality restraint systems," "minimize[ ]" the cost of implementing the standard, "reduce the scheduling problems with sled and crash test facilities needed for developmental and compliance certification testing," and avoid forcing the manufacturers from "divert[ing] scarce skilled manpower from other projects to accelerated restraint development programs." (Draft Rulemaking Report at 24). Assuming NHTSA had set a September 1, 1985 compliance date through appropriate rulemaking proceedings, reliance on the foregoing would not be arbitrary and capricious—the appropriate standard for reviewing the Agency's actions.

3. To the extent that petitioners perceive certain inconsistencies between the Draft Rulemaking Report and NHTSA's October 1 filing this was because the Draft Rulemaking Report on its face contains certain inaccurate, unsupported or speculative statements. (*See, e.g.*, Felrice Memo attached as Exhibit D to State Farm's Supplemental Memo). In particular, the draft report's basis for concluding that 80-85 percent of the cars manufactured for the United States could be sold with a September 1, 1984 compliance date was not an independent expert estimate, but was attributed by the draft's authors to the statements of the manufacturers themselves.[2] However, an overwhelming majority of those

---

[2] The Draft Rulemaking Report makes clear its sources for the September 1, 1984 compliance date:

> For the 7,799,510 cars that these manufacturers produce annually *they stated that:*
>
> * * * * *
>
> 2. By September 1, 1984, 6,649,214 or 85.3 percent of total productions could comply.

Draft Rulemaking Report at 1.

manufacturers whom the Draft Rulemaking Report predicts could meet a September 1, 1984 compliance date have made no such estimate. Indeed, the Draft Rulemaking Report mischaracterizes or ignores crucial parts of the submissions of General Motors,[3] Ford,[4] Chrysler,[5] Toyota,[6] and Honda, Nissan and

---

[3] Although General Motors' submission refers to a 21 month lead time, the estimate was premised on no unforeseeable problems, no change in standard, and no problem with respect to outside tooling and ability to reassemble design teams. General Motors characterized its assumption that outside tooling would be sufficient as "tenuous," and said that the availability of design team members was "unknown." (G.M. letter at 2.)

[4] Ford estimated that compliance in its existing small car designs would require a minimum of 84 weeks—if Ford were "free of all other constraints and able to concentrate its resources exclusively on modifying existing passenger car designs to meet the principal passive restraint performance criteria of Standard 208 by means of passive belts with detachment features * * *." (Ross Affidavits, ¶ 6.) Ford's submission went on to explain, however, that Ford "is not free of significant constraints on its resources," (*id.*, ¶ 7), and that

> it would not be practicable, despite the theoretical minimum lead time estimates described in paragraph six, above, for Ford's existing small car designs, for Ford to meet an effective date for reinstituted passive restraint requirements that might be set to coincide with commencement of 1985 model year production.

Id., ¶ 8.

[5] Although Chrysler's submission states that it could comply with existing Standard 208 in its E body car line by September 1984 at the earliest, it also makes plain Chrysler's expectation that its inability to market its remaining vehicles would force the Company out of business if September 1984 were the compliance date. (Grice letter at 1.) Therefore, only in the most artificial way can Chrysler have been interpreted as stating that it "could comply" with respect to part of its production.

[6] Toyota Motor Corporation stated that "none of our vehicles with wheelbases of 100 inches or less could be equipped with automatic belts earlier than 1985 models, *and not even then for* some *car lines*"

Mitsubishi.[7] Of the manufacturers listed by the Draft Rulemaking Report as stating that they could comply in 1984, only Jaguar and Volvo actually made statements which may fairly be interpreted as the Draft Rulemaking Report represents them. In sum, the Draft Rulemaking Report's conclusion appears to be premised on ideal conditions for design, manufacturing, testing and assembly, and on the assumption that Modified Standard 208 would remain unchanged in every detail—a highly unlikely set of circumstances which was reflected both by the manufacturers' submissions themselves and by the Agency's September 1985 estimate.

In addition, the Draft Rulemaking Report conflicted with another report prepared by the Agency's Plans and Programs Office,[8] which analyzed the same information as the Draft Rulemaking Report, as well as other lead-time information available to NHTSA but not considered in the Draft Rulemaking Report. The Plans and Programs Report, attached hereto, concludes that "September 1, 1983 is not achievable, and that

---

(Kawano letter at 4 (emphasis added))—a condition apparently ignored by the Draft Rulemaking Report's conclusion that *all* of Toyota's production could comply in September 1984.

[7] Honda Motor Co., Nissan Motor Co. and Mitsubishi Motors Corporation all furnished letters which described approximately a two year minimum lead time requirement for current models, and a 30 to 36 month minimum lead time for new models. The Draft Rulemaking Report placed all of Honda's production in the 1984 column—which is incorrect on the face of Honda's submission—and apportioned Nissan's and Mitsubishi's production in a ratio of approximately 4 to 1 in favor of the 1984 compliance date. While there may be an evidentiary basis for such an apportionment of Nissan's and Mitsubishi's production, it is not to be found in either of the manufacturers' submissions or the Draft Rulemaking Report.

[8] The Plans and Programs Office prepared the Regulatory Impact Analysis relied on so heavily by this Court in its June 1, 1982 opinion.

September 1, 1985, would be the earliest compliance date." (Plans and Programs Report at 1).[9]

4. This Court's August 4th Order directed NHTSA to advise the Court whether a September 1, 1983 "compliance date" for the passive restraint requirements of Modified Standard 208 "is achievable, or whether a longer period is required, setting forth adequate reasons therefor." The Court did not order NHTSA to set a new effective date or to submit staff level memoranda to be considered in formulating the Agency's response to the Court's inquiry. NHTSA's October 1 submission was filed "solely in response to the Court's inquiry, and without prejudice to the Agency's right * * * to modify either the substantive requirements or compliance dates of Standard 208 * * *." (NHTSA's Oct. 1, 1981, Memo at 1). Both NHTSA's October 1 memorandum and the attached affidavit were reviewed and approved by those NHTSA officials—including NHTSA's Associate Administrator for Rulemaking—who are ultimately responsible for setting an effective date, and who were aware of the Draft Rulemaking Report's shortcomings, the conclusion of the Plans and Programs Report, and the overall administrative record on lead time.

Contrary to petitioners' suggestion, NHTSA has not proposed a 1985 or any other compliance date. The Safety Act grants the authority to establish effective dates to the Secretary or his delegate acting pursuant to APA rulemaking proce-

---

[9] Both reports were considered in preparing NHTSA's October 1 memorandum and affidavit. NHTSA attorneys received the Plans and Programs Report in draft form on or about September 20, 1982, and drafts of the Rulemaking Report in the period September 22-24, 1982. The Draft Rulemaking Report was put in draft final form and forwarded to NHTSA's Chief Counsel's Office on the afternoon of October 1, 1982, just as the Department of Justice was preparing to file the October 1 submission. There were no significant differences between this draft and the September 22-24 draft.

dures. 15 U.S.C. § 1392. Here there has been no such proceeding, and it would be contrary to the statutory assignment of this rulemaking authority for this Court to consider and establish a new effective date. It would be all the more inappropriate for this Court to base a compliance date on one of two agency staff reports, on which, because of its errors, the Agency has chosen not to rely.

Even if the Agency had conducted a rulemaking proceeding, its internal staff papers would not have been mandatory subjects for public disclosure, nor their contents a basis for reversing the agency. *FCC* v. *WNCN Listeners Guild*, 450 U.S. 582, 591 n.22 (1981); *see also Ethyl Corp.* v. *EPA*, 541 F.2d 1, 52-53 (D.C. Cir. (en banc), *cert. denied*, 426 U.S. 941 (1976). The Agency is free to make its own judgment about the strengths and weaknesses of the evidence before it, and is "not rigidly barred from taking a contrary position" to that adopted by one of its staff offices. *See Bowman Transportation, Inc.* v. *Arkansas-Best Freight Systems, Inc.*, 419 U.S. 281, 288, n.4 (1974). The decision about which of two competing studies the Agency relies upon is one for the Agency and not for the court (*Lead Industries Association* v. *EPA*, 647 F.2d 1130, 1160 (D.C. Cir. 1980)), and the role of the court in such cases would be limited to reviewing the Administrator's final decision to see whether the stated reasons for his decision were arbitrary

and capricious. *Citizens to Preserve Overton Park* v. *Volpe*, 401 U.S. 402 (1971).

Respectfully submitted,

J. PAUL MCGRATH
Assistant Attorney General

/s/ Robert E. Kopp
ROBERT E. KOPP (202) 633-3311
Director, Appellate Staff

/s/ Michael F. Hertz
MICHAEL F. HERTZ (202) 633-3180
Appellate Litigation Counsel
Civil Division
Department of Justice
Washington, D.C. 20530

OF COUNSEL:

FRANK BERNDT
Chief Counsel

STEPHEN P. WOOD
Assistant Chief Counsel

DAVID W. ALLEN
Assistant Chief Counsel

HUGH F. OATES
EILEEN T. LEAHY
SHIRLEY RANSOM
Attorneys
National Highway Traffic
Safety Administration
Department of Transportation
Washington, D.C. 20590

LEADTIME CONSIDERATIONS FOR PASSIVE RESTRAINTS

SUMMARY

On August 4, 1982, the US Court of Appeals for the District of Columbia Circuit ordered that the compliance dates of FMVSS 208 be stayed until September 1, 1983, (Model Year 1984), and that the court be advised, by October 1, 1982, whether such a compliance date was achievable, or if a longer period was required. If a later date was required, the court required "adequate reasons therefor." This analysis shows that September 1, 1983, is not achievable, and that September 1, 1985, would be the earliest compliance date.

BACKGROUND

Passive restraints have been an active issue for at least a dozen years. The earlier history is not of importance here, but the actions since October 1981 are. On October 23, 1981, NHTSA rescinded the requirement that passive restraints be installed in passenger automobiles. Prior to the rescission, the requirement was that vehicles greater than 100-inch wheelbase have passive restraints by September 1982 and that vehicles with smaller wheelbases have them by September 1983.

Following the rescission, a suit was filed to reverse the Agency's decision. As indicated in the Summary, the Court ordered reinstatement of the standard. The Court recognized that the compliance date would need confirmation by the Agency by October 1, 1982. (See Attachment A for the August 4, 1982, Court order).

In order to comply with the court order, the Agency analyzed information in the briefs prepared by MVMA in response to the suits, and in addition, requested current information from the manufacturers which was also analyzed. This evaluation presents the results of the Agency's analysis to determine the earliest date passive restraints could be mandated for passenger automobiles sold in the United States.

FUNDAMENTAL CONSIDERATIONS

When NHTSA rescinded the passive restraint requirements, the manufacturers had ten months before production was ready to start on the larger wheelbase models (from November 1981 to August 1982) and twenty-two months before the smaller wheelbase models had to be ready for production in August 1983. In order for the manufacturers to start production now, they would require the above time increments assuming they could literally start exactly where they stopped. This is not a reasonable expectation. The manufacturers need to reassemble their design teams, and to spend some time starting up the design process, including reevaluating the designs they had in light of current conditions and re-opening negotiations with

suppliers. If only one month were allowed for reassembling the teams and other start up efforts, there would be eleven to twenty three months before they could be expected to begin production.* A further consideration is that it is very difficult for the manufacturers to introduce a change of this type except at the start of a model year. (This issue is further discussed in the *Other Issues* section.) Thus, based only on this simple logic it would seem reasonable that the manufacturers could barely meet the requirements for their large and intermediate cars in the model year following eleven months from August 1982, or MY 1984, and for their small cars in the model year following twenty-three months from August 1982, or MY 1985.

In order to fully evaluate the basis of this reasoning, an analysis was made of the information presented in affidavits appended to the Brief for Intervenors filed by MVMA on February 1, 1982, and in the manufacturers submissions pursuant to the Agency's request. These two analyses follow. They essentially show that some models could be introduced as MY 1985 vehicles, and with a few exceptions the remaining models could be introduced as MY 1986 vehicles. The primary reason for the discrepancy between the fundamental considerations and the analysis based on the manufacturers submission is that passive restraints for new models will require a complete development cycle, that is, the manufacturers are not picking up where they left off, but rather are starting anew.

THE BRIEFS

The Brief for Intervenors filed by MVMA in February 1, 1982 included information on leadtime from American Motors, Chrysler, Ford, General Motors, and the Automobile Impor-

*Manufacturers submissions show periods from five weeks to six months required for start-up activities.

ters of America. The leadtimes shown in the Brief are summarized below:

- AMC—36 months, to coincide with the start of a model year.
- Chrysler—MY '84 for existing E body; MY '85 for other existing vehicles if final order by June 6, 1982; MY '85 for new H body if final order by March 7, 1982. Mid-model year introduction would create severe financial harm to the company.
- Ford—60 weeks for the Panther line, 67 weeks for the Fox line. No estimate provided for the Erica line.
- GM—21 months for existing vehicle lines. No estimate for new vehicles.
- AIA—12 to 48 months depending on the manufacturers, and the details of the car lines involved.

Assuming an August 1982 start date (the date of the Court Order), the times shown above indicate that Ford and GM would be able to meet a MY 1985 production start date for their existing car lines, AMC a MY 1986 production startup date, Chrysler between MY '85 and MY '87 production startup dates, and the importers varying from MY '84 to MY '87. (See Figure 1). A detailed description of these submissions follows:

AMC Affidavit

AMC provided a two page brief, signed by their Director of Vehicle Safety Programs. The brief stated that 36 months would be required assuming normal product development processes and introduction at the start of the model year. There was no detailed support for the time estimate.

Chrysler Affidavit

Chrysler provided a comprehensive brief signed by their Vice President for Engineering. In this affidavit, Chrysler stated that at the time of the rescission, the development effort on their 1983 model requirements were about half done, and the program of the 1984 models has just begun. They assert that

redesign of front doors, roof structure, instrument panel, interior trim, front seats and the seat belt assembly itself would be required. They also make the point that Chrysler has never built vehicles equipped with passive restraints and could reasonably be expected to encounter some development problems. In support of these claims, Chrysler submitted a detailed list of the parts requiring redesign, a nine page network chart of the required design effort, and a five page computer printout showing an original schedule for the L-24 model. This effort had been scheduled to start in June 1981 and end in August 1983.

An analysis of the Chrysler submission indicates that the times are reasonable.

Ford Affidavits

Ford submitted two affidavits. The first was signed by the Manager of program timing and control, and the second was signed by the Executive Engineer for Trim, Seating, and Restraint Engineering.

In the first Ford affidavit, a general development schedule is included, and the specific times for the development of passive belts for the Panther (Ford, Mercury, Lincoln, and Mark) and the Fox (Fairmont, Zephyr, LTD, Marquis, Mustang, Capri, Thunderbird, XR-7 and Continental) car lines are discussed. They state that a formal "Stop Work" order was issued on October 29, 1982, four work days following NHTSA's announcement of the rescission. The various steps required to develop the passive restraints are discussed along with time estimates for their completion. Included is mention of a development problem encountered after initial release of the passive restraints intended for the Panther. A summary schedule is presented showing 60 additional weeks required for the Panther designs, and 67 weeks for the Fox designs.

The second Ford petition makes the point that the problem is not one of developing a single system for the Panther vehicles and another for the Fox vehicles. The particular belt system

used in each model of each carline would differ in design details from the systems used in other models. These differences would be necessitated by "packaging" differences, for example, the differences in interior and exterior structure between a two-door sedan and a four-door sedan or station wagon, and styling theme differences, for example, the design differences necessitated by the differences in appearance and appointments of a Ford and a Lincoln. The affidavit presents essentially the same schedule as the first Ford affidavit.

The Agency has analyzed the Ford submissions and believes that the times are consistent with common practice in the industry.

GM Affidavit

The GM affidavit was signed by the Project Manager of the Automatic Belt Project Center. The affidavit makes the point that "converting" to automatic belts is a different problem than converting from the planned automatic belts to the manual belts when the NHTSA order was issued allowing a one year delay. The affadavit also indicates that 36 different seat belt system configurations are required for the nine vehicle car lines which would have required passive restraints in MY '83. The extent to which the vehicle designs would need to be modified in order to accomodate pasive restraints was also described, with the following portions of the vehicle requiring re-design:

- Front Door Assembly
- Vehicle Interior Trim
- Underbody Assembly
- Front Seat Frames
- Vehicle Carpeting
- Roof Rail Assembly
- Center Console
- Center Pillar Assembly

- Wiring Harness
- Instrument Panels

The degree to which these components would have to be modified is not described—it is believed some of them would be rather minor changes (such as vehicle carpeting), but others would likely be significant efforts (door assemblies, center console).

In order to accomplish the changes required for the installation of passive restraints, GM states that it could be done practically only at model changeover time, otherwise it would require a three week shutdown for all of their 23 assembly plants.

The GM submission presents data which is consistent with other industry estimates. Their leadtime requirement is somewhat shorter than for Chrysler and AMC.

AIA Affidavit

The Automobile Importers of America submitted a letter indicating 12 to 48 month leadtime required for their members. They offer no support for this estimate.

RESPONSES TO THE AGENCY'S REQUEST FOR LEADTIME DATA

In order to have updated information, NHTSA sent a letter to MVMA and the AIA requesting an update of the information provided in the Brief. A copy of the letter is included here in Attachment B. The responses to the letter, received by September 17, 1982, are shown in Table 1 and in Figure 2, assuming an August 1982 start time. The chart shows that some manufacturers could meet the MY '85 startup time for some of their models, and with a few exceptions, all could meet a MY '86 startup time.

American Seat Belt Council

ASBC represents the webbing and belt manufacturers. They indicated that the final designs had to be submitted by the

manufacturers at least 9 months in advance of any belt or webbing production. They also indicated it would be difficult to meet a September 1, 1983 deadline. ASBC's one page response was not detailed.

TABLE 1
Respondents to NHTSA's August 9, 1982 Request

Manufacturer	Passive Restraint Leadtime Estimate (in months)	Start Date August 4, 1982				
		MY 1983 Sept '82	MY 1984 Sept '83	MY 1985 Sept '84	MY 1986 Sept '85	MY 1987 Sept '86
GM	21 (current models)			X		
Chrysler	36 (all models)				X	
Ford					X	
AM	24-36 (24 if few changes)				X	
VWoA						
—Domestic	0	X				
—Imports	24-36 (January 1986 for Audi 5000 and Rabbit Convertible)				X	
Nissan (Datsun)	23 (current models) 30 (new models)			X		
Renault	30				X	
Jaguar	15		X			
Volvo	24 (PI for MY 1986)			X		
Rolls-Royce	31				X	
BMW	22 (details confidential)			X		
Mazda	31				X	
Mitsubishi	24 (current models)				X	
Isuzu	36 (all models)					X
Saab	42 (details confidential)					X
Memo: Total number of firms		1	1	4	8	2

* * * *

General Motors

GM stated that their minimum required leadtime to begin installation of detachable passive belt systems was 21 months. The corporation noted that the leadtime for detachable belts could be shortened to 21 months only because of the R&D design work that had been performed for the original September 1, 1982 target date. GM, also, indicated that the 21 month leadtime estimate was predicted on the assumption of available supplier capacity and the assumption that detachable belts would be allowed. It would be impossible to implement FMVSS 208 as a running change; passive belt installation must start with the beginning of a new model year. The engineering staff assembled to design passive belts would have to be re-assembled. GM's response was in the form of an affidavit; Gant charts were provided and other leadtime issues were discussed in some detail.

Chrysler Corporation

Chrysler indicated it could not meet the September 1, 1983 deadline for any carlines, but could meet a September 1, 1984 deadline for their new E-car (bigger than current K-car), if detachable belts are allowed. Any date earlier than September 1, 1985 (MY 1986) would cause severe production disruptions. Chrysler had to re-assemble engineering staff and has not performed any FMVSS 208 work on its 3 new post—1985 carlines. Chrysler's response was in the form of an affidavit. Scheduling charts were provided, as well as a detailed discussion of the leadtime problems.

American Motors

AM indicated that it required leadtime of 24-36 months to comply with the current 208. The company's two-page response reiterated the position taken in the affidavit submitted in January 1982.

Volkswagen of America (Incl. VW's imports)

Currently, automatic restraints are an option on the domestically produced Rabbit model. The German built Quantum, Audi 4000, Quatro, and Sirocco models could meet a July 1, 1986 deadline. January 1986 is the earliest date for the Audi 5000 and the Rabbit Convertible. VWoA's response (in the form of an affidavit) provided Gant charts indicating the events required to lead to production.

Nissan (Datsun)

Nissan stated that it could not meet the September 1, 1983 deadline. Because most of Nissan's models have less than a 100" WB, Nissan was preparing to meet the Sept 1, 1983 date, but was only in the development stage when FMVSS 208 was rescinded. Nissan indicated it would require at least 23 months to comply with FMVSS 208 on current models; for newer models it would require another 7 months of work. Nissan's two page response did not provide any further details.

Renault

Renault questioned the wisdom of beginning work on the installation of passive restraints, in view of the uncertainties created by pending litigation. Nevertheless, the company estimates that it would require 30 months leadtime. The company's one-page submission provided no further details.

Jaguar Cars LTD.

Jaguar indicated that it cannot meet the Sept 1, 1983 deadline. The earliest deadline they could meet would be January 1984. Jaguar's response included Gant charts and production event schedules indicating the amount of work required.

Volvo

Volvo indicated it was not possible to comply with the September 1, 1983 deadline. Volvo stopped all work on FMVSS 208, when 208 was rescinded. A minimum of 24 months of leadtime

would be required to comply. Volvo would prefer, however, a MY 1986 target date. Volvo's response included a time phased leadtime chart detailing the steps required to install passive restraints.

Rolls-Royce

Rolls-Royce indicated that an effective installation date must necessarily be 31 months from the date of the decision. Rolls-Royce's response detailed the production and releasing steps required to install passive restraints.

BMW of North America

BMW stipulated that its submission was confidential. In prior statements, cited in this response, BMW indicated that it would require a 22 month leadtime to comply with FMVSS 208, beginning with the first full model year. BMW's confidential response was very detailed with Gant charts and design discussions.

Mazda

Mazda indicated that, in order to comply with FMVSS 208, its designs must be modified and supplier contracts must be renegotiated. This would require a minimum of 31 months, commencing installation at the beginning of a new model year. Mazda's response provided a brief description of the steps required to install passive restraints.

Mitsubishi Motors Corporation

MMC stated it cannot meet the September 1, 1983 deadline. It would require a minimum of 24 months leadtime for its current models, and 36 months for all models to be produced after September, 1983. Mitsubishi's response provided a brief description of the steps required to install passive restraints.

Isuzu

Isuzu submitted a three-page letter indicating they would require 3 years to introduce passive restraints for one model,

and a total of 3½ years because they intend to have more than one model. A brief schedule table was included.

Saab

The Saab response indicated they would be able to meet a September 1, 1986 (MY '87) date for passive belts, and a September 1, 1988 date (MY '89) if air bags were required. Their one-page letter included a two-page confidential attachment which showed a moderately defined schedule. Their submission does not support their MY '87 proposed start-up date.

Ford

Ford responded to the request for current information in an affidavit signed by the Executive Vice President for the Car Product Development Group for North American Automotive Operations. The response incorporates by reference the two earlier affidavits to the court.

Ford's main point was that although a minimum of 84 weeks (roughly 20 months) would be required to develop passive belt systems for its existing small cars, (which would have to precede by four to six weeks the mandatory compliance date), it does not have the manpower resources to do that and at the same time continue development of the replacements for these vehicles. Ford considers the replacement of these vehicles necessary to "help it recover profitable levels of sales, the lack of which accounted directly for Ford Motor Company's having lost in excess of $3,566,000,000 in North America during the period 1980 and 1981." The affidavit goes on to say that without such model changeover they could suffer "incalculable harm."

Ford voices a further concern, that the schedule estimates above are predicated on the use of passive belts. They note that as a result of the court order and possible further rulemaking, other types of passive restraints may be required. This would require the design process to begin anew. No estimates are offered for this eventuality. They also note that the impending

"comfort and convenience" rule could "importantly influence" the design of Ford's passive restraints.

Another issue raised by Ford is that three passenger front seats and convertibles could not be brought into conformity with FMVSS 208 without airbags, which they believe will be too costly for the "general car buying public." They estimate a two-occupant air bag system would cost Ford in excess of $1,450 at 50,000 vehicle sales per year in 1985 economics.

The conclusion of the Ford affidavit is that they could meet a September 1, 1985 compliance date by some rearranging of their new car programs, possibly including the dropping of one planned new vehicle.

The transmittal letter, signed by the Director of the Automotive Safety Office, states that it will cost Ford between $200 and $280 million to achieve compliance.

BRIEFS VS. SUBMISSIONS TO NHTSA

A comparison was made between submissions to the brief and in response to the agency's August 9 request, for those companies which responded to both. The comparison, shown in Table 2, indicates that the responses are consistent.

TABLE 2
A COMPARISON OF SUBMISSIONS TO THE COURT AND NHTSA
(Dates Measured From August 4, 1982)

Respondent	January 5, 1982 Brief submission	August 9, 1982 Submission to NHTSA	Variance
Chrysler Corporation	September 1, 1985 —26 months for current models —29+ months for new models	September 1, 1985 —24 months for new E-car —September 1985 for new models	Basically None
American Motors	September 1, 1985 —36 months	September 1, 1985 —36 months —34 months if very few changes	Basically none, except if the number of design changes are minor
General Motors	September 1, 1985 —21 months for larger cars (WB>100") —Not applicable to future models	September 1, 1984 —21 months	Basically none; letter response indicates 21 months for all models

Respondent	January 5, 1982 Brief submission	August 9, 1982 Submission to NHTSA	Variance
Ford Motor	September 1, 1984 —60 weeks for Panther models (WB>114") —67 weeks for Fox models (100"<WB<114") —No discussion of Erika models	September 1, 1985 Applicable to small cars	Earlier responses not applicable to small cars. Ford identifies manpower limitation if both carry-over and new models are to be redesigned simultaneously
Automobile Importers Of America	September 1, 1983-September 1, 1986 —12 to 48 months, dependent on which foreign manufacturer questioned	No response from AIA, but from foreign manufacturers —VWoA imports (24-36 months) —Nissan (23 months current models) —Renault (30 months) —Volvo (24 months) —BMW (22 months) —Mazda (31 months) —Mitsubishi (36 months)	N.A.

OTHER ISSUES

Timing

To require the changeover for the introduction of passive restraints at any time other than the start of the model production year (July-September) would increase the manufacturers' costs. The installation of passive restraints at final assembly is not a minor "running change."

GM, in its January 1982 affidavit, estimated that a mid-model year effective date would require the corporation to shut-down its 23 assembly plants for 3 weeks each. Ford's affidavit also noted that a mid-model, running change would be expensive and disruptive. Chrysler's affidavit labelled a mid-model year introduction "not practicable."

In essence, a mid-model year effective date would require a second launch during the term of a model year already in progress.

In the case of detachable belt systems, modified right and left B-pillars, front roof structure, instrument panels, belt assemblies, etc. would be required. A change of this magnitude would necessitate assembly plant shut down. It is the Agency's experience that production modifications of the magnitude of passive belt systems or air cushions are most appropriately confined to the beginning of the model year.

Costs

GM, Ford, and Chrysler provided estimates of the costs of equipping cars with passive restraint systems (detachable belts) GM estimated the total cost of tooling and testing for the installation of passive belts, on its broad product line, to be $375 million over 21 months. Ford estimated a range of costs of between $200 and $280 million depending upon the required compliance schedule. The equivalent Chrysler estimate was $100 million between today and 1986. Currently, these expenditures are substantial for the severely depressed domestic industry. For Chrysler, in particular, $100 million is not a

non-trivial financial outlay. After accounting for inflation, GM's estimate of $375 million is consistent with earlier cost estimates for automatic restraints provided by GM. Previously, Chrysler had not provided a total cost estimate to NHTSA. The Chrysler submission provided the scheduled budget flow required to install passive restraints between today and 1986, as follows:

	Average Monthly Expenditures
1982	$ 500,000
1983	$1,500,000
1984	$2,800,000
1985	$2,600,000
1986	$1,800,000

Phased-Out body Platforms

The domestic manufacturers have not completed the schedule downsizing of all their product offerings. If passive restraints were required by September 1, 1983 (MY 1984), numerous larger car bodies that are soon to be replaced by new, downsized counterparts would be affected. That is, vehicle modifications would be required on cars to be dropped in as little as six months. This means the cost of tooling for these models would have to be amortized over one year or less, rather than the normal four or five year period.

By MY 1986, most of this downsizing and body replacement will have been completed. For example, Ford submission stated that every Ford passenger car line would be renewed before the MY 1987 begins. For the domestics, the body platforms to be dropped and replaced (from publicly available information) are as follows:

Manufacturer	Body Platform	Carline Example
GM	Mid '84 E (EJ)	Rivieria
	Mid '84 K (KJ)	Seville
	MY 1985 GS (N)	Cutlass Supreme
	MY 1986 B (BX)	Olds 88
	Mid '84? C (CX)	Electra 225
Ford	Mid '84? Panther	Mark VI
	MY 1986 Panther	Grand Marquis
Chrysler	Mid '85? M-NY	New Yorker
	Mid '85? M	Diplomat

CONCLUSION

An evaluation of the manufacturers submissions to the Court and to the agency confirms the finding that some vehicles could be equipped with passive restraint in MY 1985; but the bulk of the fleet would require an effective date beginning with MY 1986. Based on this analysis, MY 1986 appears to be the earliest date which could be mandated for the manufacturers in initiate production of passive restraints.

* * * *